

- \* Joint study of the construction of Red Sea-Dead Sea power plants.
- \* Construction of oil and gas pipelines (Gas pipeline between Egypt and Israel now in planning.)
- \* Construction of oil transshipment station.

(7) Telecommunications

- \* Opening of more telephone lines between the two countries.

(8) Mining

- \* Limited tie-up between Jordan's Arab Potash Company and Israel's Dead Sea Works.

(9) Other joint research in human resource development, health care, etc.

## 2. Sectorial Trends

### 2-1 The Industrial Sector

(1) Infrastructure

1) Electricity

Jordan's electric power generation capacity is about 1,100 MW; about 90% of this capacity is owned by the Jordan Electricity Authority (JEA); the remainder is provided by power generators attached to factories, etc. Jordan's demand for electricity has been growing at an annual average of about 8% for the past six years; total demand in 1994 was 4,700 GWH, about 1,100 KWH per person. Jordan's power transmission facilities consist of 650 km of 400 KV power lines, 2,100 km of 132 KV power lines, and others; these, too, are owned and operated by JEA. The distribution network is operated by Jordan Electric Power Company (JEPCO) and Irbid District Electricity Company (IDECO), in addition to JEA.

Taking into account the per capita demand and the relatively low system loss rate (15%), it can be said that Jordan is relatively well equipped with electricity. Yet to meet the expected rapid future growth in demand and to ensure stable supplies of electricity while retaining a certain amount of reserve

capacity, it is urgent to build additional electric power generation facilities: presently, with OECF loans, a thermal power plant with two 130 MW units is being built in Aqaba. At the same time, work on increasing the voltage of existing transmission lines between Aqaba and Amman is scheduled, but further improvement will be needed in the transmission and distribution network to improve the system loss rate.

Poor in hydraulic energy, Jordan is dependent on thermal power, especially imported oil. It is planning in the future to use "clean" domestic natural gas, but for the time being, attention must be paid to treating emissions from oil-burning power plants and removing dust. Now that Jordan has received an energy sector structural adjustment loan from the World Bank and the OECF, further efforts are required in this area to revise prices for electricity and other forms of energy, put utilities on a better financial footing, and improve the efficiency of energy use.

As the Middle East peace process progresses, it is expected that the formation of the regional power transmission network that covers not only Jordan but also Israel and other countries will be accelerated. Among others, the network connecting the Aqaba and Eilat region are being studied.

## 2) Transportation (roads, ports)

The road network is Jordan's best-developed transportation sector: Jordan has about 9,000 km of roads in relatively good condition (70% paved). The main networks are composed firstly of a northern system, centered around Amman and Irbid, a southern system, centered around Aqaba, and routes connecting them, and secondly of routes from Aqaba to Iraq via this network. For the expansion and improvement of these road networks, the OECF provided a yen loan to Jordan in 1988 to improve roads between Irbid and the vicinity of Jarash, and between Azraq and Iraq; in 1993, the World Bank provided a loan to Jordan for improvement of the roads between the southern Ras El Naqab and Wadi Yutam, and between Azraq and Iraq in the southwest.

The flow of goods from Jordan to Iraq dropped off seriously during the Gulf war; now, with progress in the Middle East peace process, it is likely that the flow of people and goods will increase, both from Aqaba Port to Iraq and Jordan's other neighbors and across the Jordan Valley between Jordan and the West Bank, the Gaza Strip, and Israel. Constructing necessary infrastructure

for this growth is one of Jordan's next goals. It is also important to improve the systems for road maintenance and operation, including appropriate fund allocations.

The Aqaba Port, Jordan's only gateway to the sea, plays important roles in the import of supplies and daily necessities for Jordan's domestic markets, the export of its phosphate ore and fertilizers, and the transshipment of goods destined for Iraq. JICA is presently conducting a feasibility study related to expansion of the port's operations: Aqaba is expected to play an increasingly important role as Jordan's and Iraq's maritime access point to the rest of the world, and in the future, with progress in the peace process, a port for the entire Middle East region, including Israel and surrounding countries. Its improvement is important for this reason. At the same time, adequate consideration for the environment is also imperative: though Jordan's shoreline is only 26 km long, it has important significance as a tourist resource as well as being an environmental asset.

### 3) Communications

Jordan is relatively well equipped with telephones: 300,000, or about 75 per thousand persons. In the past, Jordan has received OECF loans to improve its telecommunications network and to install local telephone exchanges with capacity for a total of 140,000 lines; these account for 40% of total capacity mentioned above. In addition to them, in 1994, the World Bank made a commitment to co-finance a new project, an arrangement in which the Export-Import Bank of Japan also took part by switching equipment for about 220,000 telephone lines. Jordan's Telecommunications Corporation (TCC) is in relatively good financial shape and the Jordanian government is studying its privatization; this sector's future development will depend greatly on private financing.

## (2) Agriculture

### 1) Present status

Agriculture accounts for 8% of Jordan's GDP (in 1993); it accounts for 10% of employment (from 1990 to 1992); the sector's annual growth rate was 8.1% from 1980 to 1991.

Agriculture's contribution to GDP has declined year after year since 1975 (it was 27% in 1961, 8% in 1993) as a result of the loss of territory suitable for agriculture caused by Jordan's renunciation of administrative authority over the West Bank in 1988 and of increasing foreign aid and progressive urbanization of the economy as Jordan's overseas workers began to send more remittances to family in Jordan. Almost all of Jordan's agricultural production is consumed domestically, yet even so, Jordan's food self-sufficiency rate is low and much of its staple wheat and other farm produce must be imported.

About 90% of Jordan's territory is semi-arid. Arable land amounts to about 6% or 5,300 square km of Jordanian territory, of which about 400 square km are irrigable. The main crop producing regions are concentrated in the irrigated zone along the Jordan Valley and the rain-fed farmland on the narrow highland belt extending toward the south from the border with Syria on the eastern side of the Jordan Valley, where a certain amount of rain can be counted on to fall. Agriculture in the Jordan Valley is characteristically capital-intensive and highly productive, but in other regions, it is still labor-intensive and production is unstable and heavily dependent on how much rain falls that season.

Workers employed in agriculture account for about 10% of the entire national workforce. Most farm work is dependent on hired laborers, many of whom are Egyptians and other foreign migrant workers. According to statistics for 1991, hired farm workers number some 40,000 and perform some 40% of all farm work; foreigners account for about one-half of these farm workers, and the rural population is in the neighborhood of 20% of the total population.

## 2) Main crops

Jordan's main crops (1992 figures) are tomatoes (490,000 tons), citrus fruit (160,000 tons), wheat (75,000 tons), and barley (68,000 tons).

Vegetables are the most important crop, accounting for about 30% of total agricultural income (average from 1980 to 1990) and 58% of all food exports (in 1990). The main vegetables grown are tomatoes, cucumbers, eggplants, and squash; all are important exports. Plastic greenhouses and other horticultural facilities are used to grow 24.5% of vegetables produced. With 48% of total cultivated area, 64% of total production, and 65% of total value of production (in 1990), the Jordan Valley is Jordan's vegetable production center. Espe-

cially in the winter, the valley's facility-intensive farming is an important generator of exports.

Grain production averaged 66,000 tons of wheat from 1985 to 1989, considerably short of domestic consumption (500,000 tons): every year, about 400,000 tons of wheat are imported. These grain imports include livestock feed, which averages 32% of total imports in this category. Wheat is cultivated mainly in rain-fed areas; from 1980 to 1989 on average, wheat was planted on 62% of rain-fed land and 36% of all arable land.

The highlands are Jordan's breadbasket, where wheat, barley, legumes, and tobacco are grown.

The Jordan Valley and the area around Amman, however, where agribusiness is established, are the best irrigated lands, where potatoes, legumes, and other vegetables are grown.

### 3) Development-related issues

#### (a) Natural conditions

The most serious impediment to the development of Jordan's agriculture is the irregularity and scarcity of rain. As stated in section 1) above, most of Jordan is semi-arid and arable land is extremely limited.

#### (b) Inefficient use of water resources

Water is an extremely important and scarce resource for Jordan, yet farming is so structured that water is wasted. Though agriculture accounts for only 8% of GDP, it consumes 75% of Jordan's water resources: for the rest, Jordan is dependent on groundwater. Already, 91% of Jordan's flowing surface water is used: major expansion of the supply cannot be counted on. Worse, it is feared that overuse of groundwater will cause salinization of farmland, as it has done already in some areas in the south.

Furthermore, out of political considerations toward landowners, prices of water for irrigation are kept low (about 1/40 the price of drinking water), with negative effects on the national finances.

### **(c) Agricultural policy-related issues**

Not only is improvement needed in the Ministry of Agriculture's policy planning, implementation, and evaluation capacity, but also, as noted by all donors, liaison and coordination with the Ministry of Planning, which is in charge of coordinating all national policies, are lacking.

The following factors further impede effective agricultural policy implementation: i) frequent replacement of the Minister for Agriculture in charge of agricultural policy, ii) ensuing frequent changes in policy resulting from cabinet reshuffles, iii) the presence of many major landholders among powerful members of the national assembly and public administration, iv) existence of many pressure groups, and v) serious outside interference in the implementation of agricultural development policy.

### **(d) Other issues**

Other problems associated with agricultural administration and management have been pointed out: i) agricultural agencies and cooperatives take action without coordinating their efforts, ii) distribution channels and marketing organizations are weak, iii) agricultural finance institutions and related industries are small-scale, and iv) the infrastructure of agriculture and supporting services (agricultural field research stations, technology transfer, information, and agricultural training) is underdeveloped.

## **(3) Mining and manufacturing**

### **1) Present status**

#### **(a) Mining and energy**

The mining industry accounts for 26% of Jordan's GDP (in 1993) and 26% of employment (from 1990 to 1992); its growth rate from 1980 to 1991 was -0.2%. Production of key mining products in 1992 was 4.3 million tons of phosphate, 1.26 million tons of potash, 2.75 million tons of cement, and 2.84 million tons of petroleum products.

Mining is Jordan's largest industry, accounting for 21.5% of industrial production by value. Phosphate and potash are the country's most important

mineral resources; processing of phosphate and potash is the core of Jordanian industry. The sector receives subsidies, mainly from government and public agencies.

Phosphate is Jordan's most important ore. Only Morocco exports more phosphate than Jordan: Jordan's share of the world market is 15%. Proven reserves of phosphate ore are estimated at 1.5 billion tons; regions where it is found include Al-Hasa, Wadi al-Abyad, and Rusaifa in the north and Shediya in the south, where production began in 1989. The extraction of phosphate ore and its processing into fertilizer are carried out by the Jordan Phosphate Mines Company. This industry and its export volume have declined, due to decreasing worldwide demand in recent years and the impact of economic sanctions against Iraq.

Since late 1982, the half-state, half-privately owned Arab Potash Company has been producing potash at an extraction plant begun as a model project at the southeastern edge of the Dead Sea. In 1982, it produced 280,000 tons; in 1989, it produced 1.35 million tons and began to turn a profit. All of Jordan's potash is exported; exports were worth 67 million JD in 1988.

Jordan's other mineral resources include reserves of 10 billion tons of oil shale; this oil shale is not being commercialized because it cannot compete presently with low-priced oil. Cement production has grown steadily from the early 1980s; from 1985 to 1986, it stagnated due to the domestic and international slump in construction, but in 1987, Egyptian demand increased and production picked up.

In the petroleum refining department, at the end of 1983, high quality oil with low (1.1%) sulfur content was discovered at the Hamza oil field. Using this crude, 600 barrels of oil are refined per day; Jordan's refining capacity is 4.2 million barrels per year. The products are fuel oil, kerosene, light oil, benzene, etc. Though Jordan has the capacity to supply its needs for refined oil products domestically, 99.5% of its crude oil is imported.

## **(b) Manufacturing**

As of 1992, manufacturing accounted for about 15% of Jordan's GDP. The heart of the country's industrial belt stretches from Amman to Zarqa; it centers on small-scale processing of farm produce, on labor-intensive fiber, textile, furniture, woodworking, and metal working, and on food processing. Pharmaceuticals achieved growth in recent years as a promising new industry with potential for competitive export activity. Yet because of the very small domestic market, it is difficult for this sector to increase its share of GDP. And due to the export markets offered by nearby Arab countries, the economy is structured such that it can easily be influenced by an economic downturn in neighboring countries and by import restrictions, higher tariffs, and other changes in policy. Jordan's manufacturing industry was particularly hard hit by the Gulf crisis, since it had set its sights on the promising Iraqi market: in 1991, it suffered a 2.9% decrease in production with respect to the level of the previous year.

### **2) The government's industrial promotion policies**

In the framework of its economic liberalization policy, the Jordanian government is seeking to stimulate private investment by privatizing state enterprises, upgrading Amman's securities market, taking measures to provide low-interest financing via the Industrial Development Bank, and granting exemptions under the Foreign Investment Law from import duties and income taxes and abatements on income taxes to companies that export their products. It is making special efforts in the area of promoting investments: fiscal incentives have been granted and restrictions on ownership of Jordanian companies by foreign capital have been eased under the new Investment Law of 1995; within certain limits, foreign and Jordanian owners are now granted virtually the same conditions. An Investment Promotion Corporation was also established under the new Investment Law, and authorization procedures have been simplified and better information services are being offered.

In connection with this policy, the Jordanian government is working actively to set up a free trade zone and build industrial parks. The object of the "free zone" is to promote the production of industrial manufactures for export and to foster entrepôt trade. Priority measures are being taken through tariffs, licensing fees, and exemptions from corporate taxes. The zones are to be located in Zarqa (in Amman's suburbs), the Port of Aqaba, the Syrian border



district, the area around Queen Alia International Airport, and in Sahab. Presently, these zones amount to little more than warehousing centers for entrepôt trade: serious industrial investments has yet to take place. To accommodate greater future investment in industry, it is necessary to improve infrastructure, including shipping and distribution, and to train people in both technology and marketing. Industrial parks exist in two locations: Sahab (in Amman) and Irbid; industries moving into these parks are given utility rate discounts and tax exemptions for the first two years. Sahab has attracted 380 companies; Irbid is newer, and had three factories as of 1993 and 20 as of 1994. The construction of industrial parks is now being planned in Karak (Muta), Aqaba, and Ma'an.

#### **(4) Tourism**

##### **1) Tourism's status in the Jordanian economy**

Tourism accounts for a large share of GDP and plays a major role in job creation, and for this reason is regarded as one of the most important strategic sectors for development. In terms of the value of exports, it ranks first among export items including both goods and services; in terms of foreign currency income generated, it ranks second, only after remittances from Jordanian workers overseas. In 1994, tourism earned Jordan US\$569 million, equivalent to 40% of the country's total exports.

The number of tourists visiting Jordan dropped off temporarily during the Gulf war, but has continued to grow steadily since then, reaching 840,000 people in 1994. With progress in the Middle East peace process, the number of tourists from Israel has risen steeply: during 1994, some 10,000 Israelis came to Jordan, but merely in the first half of 1995, more than 50,000 came. Steady growth is expected in the tourism sector.

##### **2) Crucial basic policy considerations for tourism promotion**

###### **(a) Social considerations**

Peace is a prerequisite for the development of tourism, and conversely, contacts between people through tourism foster peace, making tourism a "peace industry" in both the passive and the active senses. Yet the development of tourism is a double-edged sword, with attendant risks that deserve consider-

ation. Agitators can exploit the issue, criticizing tourism as "exploitation by foreign or urban capitalists" or "purveyors of a decadent civilization." And the development of tourism cannot be sustainable if it leads to higher crime rates or violence, such as terrorism. Consideration must therefore be given to these factors in the development of tourism by promoting satisfactory dialogue with local communities, seeking ways to facilitate the participation of local capital and local business leadership, and linking tourism to the creation of local jobs and fostering of local industries.

(b) Environmental considerations

Almost all touristic resources—the Dead Sea, the Gulf of Aqaba, Petra, and Wadi Rum—are extremely susceptible to environmental degradation. Sustainable development must be made possible by taking such preventive measures as environmental impact assessments and effective waste management.

(c) Regional tourism

The development and strengthening of organized tour packages that include neighboring countries (e.g., Israel, Syria, Lebanon, and Egypt) should be the basis for increasing the number of European, North American, and Asian tourists visiting Jordan. At the same time, it is imperative that Jordan strive to lengthen such tourists' stays in Jordan.

3) Multilateral cooperation in the region

At the initiative of the Government of Japan, a working group for tourism was set up within the framework of The Regional Economic Development Working Group of the Multilateral Middle East Peace Process, and for more than two years thereafter, the government continuously made diplomatic and technical efforts to promote regional tourism cooperation. One of the major accomplishments of the tourism working group was the establishment of a regional tourism association called the Middle East and Mediterranean Travel and Tourism Association (MEMTTA); the organization's inaugural meeting is supposed to take place in 1996. Japan is expected to cooperate toward nurturing its sound growth and development and if deemed necessary to further exercise continued leadership outside MEMTTA and to further promote regional tourism cooperation.

**Table 1 International tourism receipts (travel credits)  
in relation to other credits (unit: US\$1million)**

Year	Exports (A)	Service credits (B)	Travel credits (C)	Shares (%)		
				C/A	C/B	C/A+B
1988	869	2352	623	71	26	19
1989	930	1903	535	57	28	18
1990	922	2013	510	55	25	17
1991	879	1916	324	36	17	11
1992	932	2402	472	50	19	14
1993	894	2632	546	61	21	15
1994	1393	2696	569	40	21	14

Source: Ministry of Tourism, 1995

**Table 2 Number of tourists coming to Jordan (1989-1994)**

Year/region	1989	1990	1991	1992	1993	1994	Growth rate (94-93)	Ratio by region (94)
USA	48257	38538	23978	39250	51512	69878	35.65%	8.28%
Europe	127148	117366	57968	120898	151475	191282	26.28%	22.66%
Gulf states	452559	404567	348216	490629	547006	553050	1.10%	65.51%
Others	13183	13556	6401	12804	15607	30053	92.56%	3.56%
Total no. of tourists	641147	574027	436563	663581	765600	844263	10.27%	100.00%
Total foreigners entering Jordan	2278126	2633262	2227688	3242985	3098938	3224752	4.06%	

Note 1) Others: Australia, New Zealand, Japan, Singapore, Hong Kong, Israel

2) Tourists from Israel in 1994: 10767

Source: Ministry of Tourism, Statistics Section, 1995

## 2.2 Finance and Investment

### (1) Government investment

Government (or more properly, state) investment plays an important role in Jordan; structurally speaking, this investment has been sustainable by aid from overseas donors. The main donors sustaining public investment by the state have been Great Britain from the time of its mandate until the mid-1950s, then the United States, then the Arab states of the Gulf in the 1970s. Aid from the Gulf Arab states dwindled during the 1980s, however, as the international oil market languished, and Jordan began drawing more heavily

on domestic sources to finance its current expenses. At the same time, it began to explore more earnestly the possibility of aid from Japan and other new aid donors. Especially during the international balance of payments and foreign debt crisis of the late 1980s, it began seeking ways and means to mobilize domestic savings. The Gulf crisis of 1990 precipitated the total cutoff of aid from Saudi Arabia and other important Arab oil-producing states.

Jordan's expenditures in 1994 totaled 1,669,100,000 JD, of which the current account was 1,118,500,000 JD and the capital account was 550,500,000 JD: a proportion of 2 to 1. In the current account, the biggest expenditures are defense and police related, and are a little less than one-third; subsidies and expenditure transfers amount to about one-fourth; salaries, wages, and allowances also account for about one-fourth. It is important for Jordan to try henceforth to procure domestic and overseas capital by increasing its tax revenues and using market mechanisms, instead of relying on politically motivated aid exploiting its strategic geographical location. Its efforts have been rewarded thus far: the share of domestic resources in fiscal revenue has risen from 51.9% in 1980 to 85% in 1994. The recent trend in overseas revenue indicates that whereas fiscal revenue generated overseas was 30% (261,700,000 JD) in 1989, it had shrunk to 11.2% (167,300,000 JD) in 1994.

Internal sources of funds emphasize the efforts being made to increase tax revenues: in 1992, the sales tax was replaced by a new sales tax thanks to which Jordan's tax revenues in 1993 exceeded non-tax revenues for the first time. In 1990, tax revenues accounted for 36.8% of domestic finances; in 1994, they had risen to better than half, 55.6%. Roughly one-third of tax revenues in 1994 stemmed from import duties and another one-third from sales tax income. Of non-tax revenues, roughly half the total was provided by postal-telegraph-telephone business income and from other fee and commission income.

## (2) Private sector investment trends

Jordan's private-sector domestic investment tended in the past to be concentrated on housing, wholesale and retail business, services, and finance; industry's share was relatively small. The Central Bank of Jordan and the Jordanian government have been counting more than in the past on mobilization of private-sector funds to fund productive investment in industry and related fields. Though the Amman Financial Market (AFM) is still small, it is

attracting increasing attention from international financial market observers as an emerging new market. Jordan is very eager to introduce foreign capital. In some cases, preferential treatment is given to non-Jordanian Arabs. In investment in industry, agriculture, and services, and in real estate ownership, non-Jordanians have equal rights with Jordanian nationals; in financial and trade-related investment, however, non-Jordanian ownership is normally limited to a maximum of 49%.

Since December 1995, regulations affecting Jordanian securities and capital investment by foreign capital have been eased, but notable investment is not yet visible. Ninety-seven firms are listed on the Amman Stock Exchange; stock prices are at the US\$4.7 million level. Companies in which foreign investors are interested with stock valued at \$100,000 or more number no more than a dozen. It is said that foreign capital is not allowed to own more than 49% of any company, but the Arab Bank and the Housing Bank, among the most popular investments, already exceed this percentage. Domestic and foreign investors mainly watch political developments—the Middle East peace and the situation in Iraq—as determinants of Jordanian capital markets' future.

### (3) Banking trends

Jordan's banking sector has grown at a relatively rapid rate, 20% annually (in assets), for the past decade. Amidst the economic crises of the late 1980s with the bankruptcy and liquidation of the Petra Bank, then Jordan's number two commercial bank, and the merger of the Jordan-Gulf Bank and the Mashrik Bank, the sector underwent a period of severe financial crisis. Thereafter, however, Jordan's banking sector recovered thanks to the post-Gulf crisis construction boom and the influx of funds brought by returnees from the Gulf states. As of 1993, Jordan's six domestic banks have 203 domestic branches; its seven foreign banks have 40 branches in Jordan, in addition to which there are four investment banks, six (including three state-owned) special financial institutions, four non-banks, and one Islamic bank. In addition to banks, there are many foreign currency exchangers; these were closed for a time in February 1989, but reopened in 1992 when new regulations were established. The largest of the money exchangers also offer commercial-bank-like services; having personal connections to the Central Bank of Jordan and commercial banks, they should not be underestimated. The Arab Bank is the largest of the

commercial banks, and has about half of all bank deposits in its hands alone. It has branches in the main international finance centers. It even had a representative office in Tokyo for a time (until after the Gulf war). Its Far East office is now located in Seoul. The Arab Bank is, moreover, originally a Palestinian-owned bank with its head office in Jerusalem. It deserves watching because of its close historical and personal connections to the West Bank.

#### (4) Commercial banking trends and the Middle East peace process

One of the most noticeable developments in the peace process between Israel and the Palestinians was the rush by Jordanian banks to open branches in the West Bank and the Gaza Strip. When the Israelis occupied the West Bank and the Gaza Strip in June 1967, there were 32 bank branches in the West Bank (nine in Jerusalem), and the Arab Bank and the Arab Land Bank had six branches in the Gaza Strip, a total of 38 in the occupied territories. The Israeli occupiers ordered all banks to close, and Arab banks lost this base for their banking activities.

In 1981, the Palestine Bank opened a branch in the Gaza Strip, and in 1986, Jordan's Cairo-Amman Bank was authorized to reopen, but activities in the occupied territories remained extremely limited. At the end of 1989, there were still no more than six branches: four Cairo-Amman Bank branches in the West Bank and two Palestine Bank offices in the Gaza Strip. By the end of 1993, these two banks had increased their branches to 13, four belonging to the Cairo-Amman Bank and three to the Palestine Bank. Later, as the peace process began to make progress, there was an explosion in the number of West Bank and Gaza Strip branches: at the end of May 1995, ten banks were represented by 41 branches; Jordanian banks, of which there were 32, accounted for three-fourths of this number. Permission to establish a branch on the West Bank or the Gaza Strip had to be obtained from the Central Bank of Jordan, Israeli authorities, and the Palestinian Authority, but the rush to establish branches is a sign of strong incentive to establish a presence.

Jordanian banks with branches in the West Bank and Gaza Strip territories have been criticized for taking Palestinian deposits and investing them in Jordan. This criticism from the Palestinians stems from the dearth of investment aimed at West Bank and Gaza Strip development. Though it is true that for the time being, funds are flowing from the West Bank and Gaza Strip to

Jordan, flows in the other direction will become possible once West Bank and Gaza Strip economic development begin to pick up steam. In either case, it is noteworthy that West Bank and Gaza Strip ties with Jordan are becoming stronger in the financial domain and that Jordanian banks are playing a leading role in strengthening these ties.

## **2-3 Development of Water Resources**

For a country like Japan, which is relatively well endowed by nature with water resources, it is difficult to imagine a situation where water resources control the very fate of national development. Jordan's water resources are limited and have imposed constraints on economic development for several decades. Jordan is therefore striving to develop these resources. The state of Jordan's water resources will be explained on the following pages with the aid of four figures and tables.

### **(1) Jordan's water resources today**

#### **1) Surface water**

A map of dams in the Middle East and Eastern Mediterranean shows many located in the north of Syria and Turkey, but few in Jordan. Annual rainfall ranges widely from 50 to 600 mm in different parts of Jordan, but averages 104 mm, 1/17 Japan's figure. Due to higher evaporation, the ratio of precipitation that is usable is only 1/3 Japan's. Hence surface water is a low percentage (only 41%) of all water used. These facts demonstrate how poor Jordan is in renewable flowing surface water resources.

Rivers divide Jordan into 15 major water basins, but rainfall is concentrated in the northwestern hilly region, whose rivers are the main source of surface water flowing into the Jordan Valley. The largest river is the Yarmuk, which flows through Jordan and Syria and provides 40% of Jordan's total river water.

**Table 1 Water use according to sources (1993) (mil. m<sup>3</sup>/year)**

	Surface water	Ground water	Treated waste water	Total
Municipal use	57	157	0	214 (22%)
Industrial use	3	29	2	34 ( 3%)
Irrigation	337	341	48	726 (74%)
Livestock	4	6	0	10 ( 1%)
Total	401 (41%)	533 (54%)	50 (5%)	984 (100%)

Source: Water Authority of Jordan

**Table 2 Water supply and demand (mil. m<sup>3</sup>/year)**

Year	1990	1995	2000	2005	2010
Municipal use	227	293	349	410	476
Industrial use	43	50	78	96	119
Irrigation	800	1088	1088	1088	1088
Total demand	1070	1431	1515	1594	1683
Real supply	870	950	980	1050	1100
Secure supply	700	710	843	970	1070
Shortfall	200	481	535	544	583

Source: Water Authority of Jordan

## 2) Groundwater

Even though seepage of rainwater makes only a minimum contribution to groundwater resources due to the scarcity of rainfall, groundwater does play a great role, greater than surface water's, in total water usage (54%).

Because groundwater has such an important place in water resources, detailed hydrological surveys are performed and complete information is available. Securing new and cheap sources of water remains very difficult, nonetheless. The Disi aquifer, located near Jordan's southern border with Saudi Arabia, is counted on as Jordan's last and major available groundwater source. A water conveyance system from Disi to Amman is in preparation; 90 to 150 mil. m<sup>3</sup>/year of capacity and at a distance of about 300 km.



### 3) Treated waste water

Some of Jordan's limited water resources, namely sewage, has long been treated for use in irrigation; such recycled water accounts for 5% of total water use. Sewage from the Amman, Zarqa, and Barqa districts is treated in a large-scale recycling system described below and put to effective use in irrigation.

Sewage → As-Samra Waste Water Treatment Plant → King Taral Reservoir → Irrigation of farms in the Jordan Valley

### 4) Additional water rights arising from the Peace Treaty

As a result of the Peace Treaty between Jordan and Israel, an additional 215 mil. m<sup>3</sup>/year of water is expected to be made available in Jordan; this is very good news for Jordan, as this amount is equivalent to 22% of Jordan's water consumption. Jordan uses 90 mil. m<sup>3</sup>/year for municipal use, 35 mil. m<sup>3</sup>/year for industrial use, and 90 mil. m<sup>3</sup>/year for irrigation. A big project for municipal use calls for a water conveyance system, 100 km distance to Amman in the year 2000. This pipeline's capacity is equivalent to the Amman area's current demand; predicted to serve a population of 2.19 million, it will be Jordan's last water supply system of surface water source.

## (2) Overview of the water sector

### 1) Water supply

The Water Authority of Jordan (WAJ) is in charge of the water supply. Jordan is among the best provided of all developing countries with a potable water supply: 96% of the service ratio. Jordan's inhabitants depend on public water supplies because rainfall is scarce, surface water is unavailable, and the groundwater level is very low. Therefore, while the high service ratio of water supply is very welcome, conversely it is indicative of the difficulty of securing potable water.

And although running water is widely available, the insufficiency of supplies and the impossibility of fully meeting demand strains the supply situation. The average unaccounted water ratio is high (55%), indicating that only 45% of supplied water is paid for. Water's efficient use and viable management also presents problems. Water utilities' administration and finances are inadequate.

To remedy these issues, the WAJ is now making earnest attempts to expand its facilities and rehabilitate existing facilities, but room for improvement and adjustment remain nonetheless.

## **2) Sewage**

WAJ is in charge of all sewage services. Jordan has an amazingly high sewage service ratio for a developing country: 47% of inhabitants have toilets connected to the sewer system. In most countries, development of the sewage system would be one of the major objectives of living environment improvements, but in Jordan, because groundwater is a major water resource, the waste water treatment and recycling of water are important both to prevent contamination of groundwater and to ensure efficient water reuse.

Waste water treatment plants have been built in 14 locations in Jordan. The oldest was built in 1981, most of the rest after 1987; Jordan's sewage system infrastructure is therefore relatively new. Since the per capita water consumption is scant, the concentration of organic substances in sewage is high, lowering treatment efficiency and posing quality problems in some plants that hinder treated water's reuse.

## **3) Irrigation**

The Jordan Valley Authority (JVA) is in charge of all irrigation works in the Jordan Valley. Irrigation is the purpose for which most water (84% of surface water, 64% of groundwater, and 100% of treated waste water) is used. Almost all irrigation water is put to use in the Jordan Valley. It would be difficult to reduce water use for irrigation because agriculture is a priority area for development.

The accumulation of salts in the soil caused by the increasing salinity of groundwater and expected further increases in salinity due to water recycling are a growing problem.

## **(3) Future water resource problems**

### **1) Imbalance between supply and demand**

Figure 1 shows the wide gap between water supply and demand. Although the problem has been temporarily eased somewhat since 1995 by the Peace

Treaty water projects and Disi water conveyance system, the gap is expected to widen again later.

## 2) Scarcity of renewable water resources

Jordan's basic problem lies in the non-renewability and non-sustainability of its water resources. In Japan, by contrast, the proportions are reversed and resources are both renewable and sustainable: surface water supplies 86% and groundwater supplies 14% of Japan's water demand.

The shortfall caused by this imbalance is compensated by over abstraction of groundwater. Groundwater levels are falling all over Jordan: the monitoring data shown in Figure 2 indicate a noticeable drop in the majority of wells' water levels.

Jordan's water resources are extremely limited, and development of new resources is costly when it relies on desalination of sea water or brackish water; hence a radical solution that will eliminate this imbalance is not in sight. The water conveyance system to Amman by the Peace Treaty will partly reduce over abstraction of groundwater, but the eventual drying up of groundwater resources still remains a concern.

## 3) Structural problems of water use

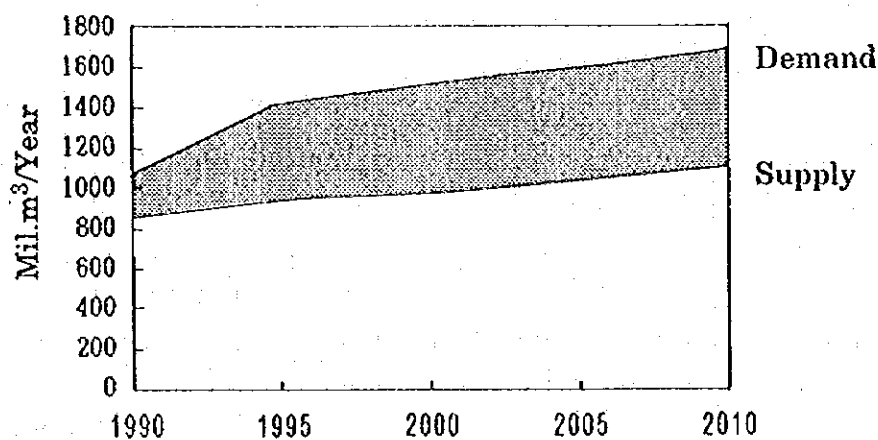
Though Jordan's agricultural population was only 7.4% in 1991, it consumed 74% of Jordan's total water supplies, and irrigated farm production amounted to only 8% of Jordan's GDP (1993 data): in other words, irrigation water use is not being efficiently linked to output. The problem has structural implications: farmers' livelihoods must be maintained, but the groundwater being lavishly abstracted to irrigate crops is non-renewable.

## 4) Underpriced water

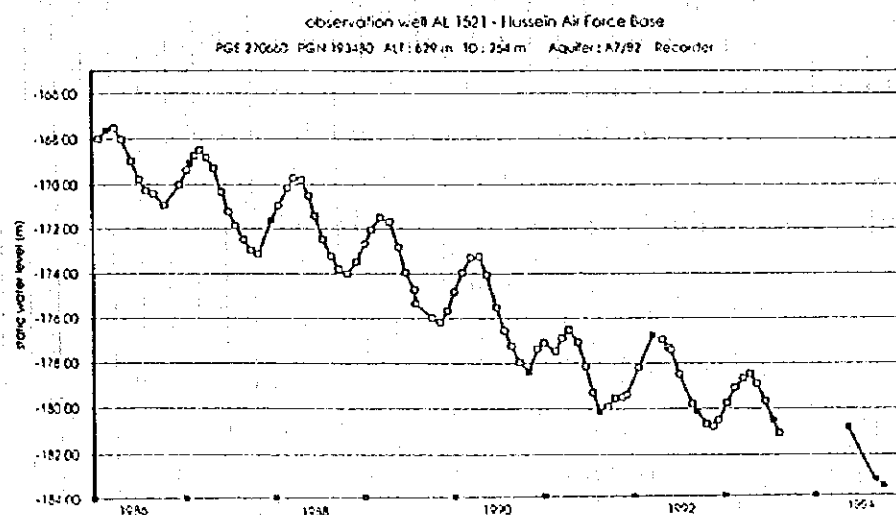
Potable water is supplied at about one-half its unit cost; this means that the more water sold, the greater the deficit. Furthermore, it is also national policy to keep charges for irrigation water low, namely 1/12.5 of the price of potable water. Hence tariffs cover only a few percent of the unit cost of the water supplied, and the government subsidizes the deficit. Yet inasmuch as Jordan must continue to produce food, the water problem promises still to cause considerable hardship in the future.

Finally, although Jordan's water resource development issue has taken a turn for the better thanks to the Middle East peace process, this does not change the fact that the country's water resources are finite. In the future, in addition to taking what measures it can on its own, such as curbing demand and seeking more effective use of water resources, Jordan must approach solutions transcending the national framework. The coordination of water resource development with surrounding countries is one of the important tasks on the agenda.

**Figure 1 Gap between water demand and supply**



**Figure 2 Dropping of groundwater level due to over abstraction**



Source: Grand Water Resource of Northern Jordan, Water Authority of Jordan, Federal Institute for Geosciences and Natural Resources, Hannover, Germany.

## **2.4 The Social Sector**

### **(1) Education**

#### **1) Jordan's educational system**

Basic school education in Jordan, which is compulsory, is ten years long, from age 6 to age 16. Secondary education last two years, from age 16 to age 18, and is divided between "comprehensive school," oriented toward college, and vocational school, oriented toward vocational training. The Vocational Training Corporation, established in 1977, provides active vocational training, which is carried out through close coordination with employers. Higher education (from age 19 to age 22) includes both universities and community colleges. Children from 4 to 6 years of age may be sent to preschool before compulsory education begins. And in addition to formal education, there are vocational training programs for adults, literacy programs, reeducation for school drop-outs, and special education for the handicapped. The Queen Alia Fund, an NGO, provides schooling for girls in rural villages.

Administratively, schools are divided into basic, secondary, and pre-school; 71% are operated by the state, some 20% are run privately, and 6% are Palestinian refugee schools run by the UNRWA. Preschools are under Ministry of Education jurisdiction, but their actual operation is handled by private and voluntary organizations. Public educational institutions accommodate 75% of all pupils until the end of secondary education. Many middle class and upper class Jordanians in the cities send their children to private schools in Jordan, or to schools overseas. While 84,000 students are enrolled in Jordanian institutions of higher education, 30,000 study abroad (data for the academic year 1991/1992, Ministry of Planning, Economic and Social Plan, 1993-1997).

Compulsory schooling at public schools is free; public secondary education, too, is normally free.

#### **2) Education's present status and problems**

Rates of school enrollment have risen rapidly since the 1960s: during the academic year 1968/1969, 70.6% of school age children attended primary school, 7.5% attended a secondary school; in 1992, 105% of school age children attended elementary school (this is the percentage of children of school age at-

tending school; the total exceeds 100% because some children repeat the same grade: in reality, the net enrollment rate is said to be around 99%); at least 60% attended secondary school, and 19% were receiving a higher education. In 1979, adult illiteracy rate was 35%; in 1993, it was 16% (23% of women).

In relation to the improvement of education, information is quite widely spread through the mass media as well: despite the existence of disparities between urban and rural populations, in 1990, 88% of households owned a radio and 91% owned a television (source: Department of Statistics, Ministry of Health, Jordan, Population and Family Health Survey, 1990).

The Jordanian government began long ago to make efforts to improve education and Jordanians' access to it. Compared to surrounding countries and countries with equivalent per capita GDP, educational levels are high in terms of school enrollment and literacy rates. Much room for improvement nonetheless remains in terms of educational quality.

First, many institutions are under equipped and understaffed and must dispense schooling in two shifts. The shortage of teachers is acute: the student to teacher ratio averaged 22 to 1 during the academic year 1991/1992, but in the Zarqa district it was 36 to 1. Problems exist at the qualitative level as well: for example, until recently, a community college level degree was sufficient to qualify a teacher to work in a school. Problems also remain to be solved at the administrative level: schools have twice as many administrators as teachers. The quantitative and qualitative insufficiencies of facilities and faculty undermine educational efficiency. This is presumably why many families send their children to private schools or boarding schools overseas.

Jordan's dropout rate is also high. Though 97% to 98% of pupils at the initial education stage of basic education (grades 1 through 3) are promoted to higher grades at the end of the year, in the latter stages (grade 8 through 10), only about 90% are promoted; the higher the educational level, the higher the percentage of dropouts and unpromoted students (1989/1990 academic year, UNICEF, Situation Analysis, 1993). Reasons why many students drop out include students' inability to keep up with their class (a problem attributable to both these students and their teachers) and inappropriate curricula, as well as poverty. Especially in rural villages, many children must drop out of school to work. The higher rate of dropouts among boys at the secondary school level

is thought to be due to their being sent to work.

And while enrollment rates are relatively high as a whole, disparities do exist among regions: enrollment rates are highest in big cities, lower in smaller cities and towns, and lowest in villages. Although no major gap is seen between the sexes at the primary school level, the trend is for the gap to widen increasingly as students reach higher education. Women's enrollment rates are higher in higher education, but more men are enrolled in universities while more women tend to enter community colleges. Compared to Jordan's neighbors, however, the level of women's education can be said to be quite high.

Recently, another problem has been caused by the growing exodus from the Gulf and return to Jordan of Jordanians who worked in the Gulf states; many have school age children, whose presence now aggravates the shortage of facilities and teachers in Jordanian schools.

Other problems are expected to become issues in Jordan in the future, such as preschooling, youth activities, and other areas where the Jordanian government is not presently making very great efforts, as well as the question of education for refugees.

### 3) Educational programs and tomorrow's agenda

From 1987 to 1988, Jordan received aid from the World Bank and other aid agencies to carry out a major educational reform. In the course of this reform, Jordan's Act of Education was amended in 1988 to extend compulsory education from 9 to 10 years and to upgrade the qualifications required for a teaching post from a two-year community-college to a four-year university degree. The reform also led to new curricula development and expansion of educational facilities. A new educational policy with greater emphasis on vocational training was also drafted. In the future, attempts to further raise educational levels by building and enlarging facilities, improving the quality and quantity of the teaching staff, narrowing disparities among regions, and developing new curricula will continue to be necessary.

From the standpoint of human resource development, ties between education and employment are indispensable, but in Jordan's case, a higher education does not necessarily lead to stable employment: there are not enough job openings for graduates, even for those with higher education. Economic ben-

efits do not necessarily accrue to Jordanians from either training or education: for example, students who completed their secondary education are more likely to be unemployed if they took vocational courses than if they took the comprehensive courses that prepare them for a higher education. Consequently vocational schools are not popular with students. Many holders of degrees from institutions of higher learning are unemployed, and many suggest that the money spent on subsidies for higher education could more effectively be spent elsewhere. Educational and human resource development policy and vocational training ought, it seems, to be carried out in a way that takes better into account the real needs of the business world.

## (2) Labor and employment

### 1) Summary

According to 1993 statistics (Country Report, Economic Intelligence Unit, 1995), the job market is broken down as follows: agriculture 6.4%, mining and manufacturing 10.6%, construction 7.0%, electricity, water, communications, and transportation 7.4%, commerce and trade 15.1%, finance and insurance 2.9%, and the public sector 50.6%. This breakdown is characterized by a small agricultural population and a very large public sector. Though the percentage of workers employed in manufacturing is low, the sector's recent growth has outpaced the industry-wide average.

Younger women's entry into the workforce is making brisk progress, but it is common for them to leave the workforce when they get married. The number of women with jobs as a percentage of women in the general population has risen from 5.3% in 1960 to about 10% in the 1980s (and was 9.9% in 1990, according to Social Development in Jordan, 1992). Because wages are determined by occupation, there is almost no wage difference between men and women within a given occupation. The unemployment rate of women, however, is three times that of men.

In general, women workers are better educated than their male colleagues. About one in five working men has received a higher education, compared to two out of three working women. Perhaps for this reason, women workers are concentrated in white collar jobs, teaching, and government related work: 80% of women workers are employed in the public sector. With growth in the manufacturing sector, the number of women with manufacturing jobs has also



increased.

## 2) Unemployment

Thanks to the economic boom in the 1970s, unemployment was low (3.5%) until the 1980s. It rose, however, during the economic downturn of the 1980s, reaching 18.8% in 1991 (Ministry of Labor data). In recent years, a slight improvement has been visible: unemployment sank from 18.8% in 1993 to 15.4% in 1994 (Central Bank of Jordan, Annual Report, 1994). Factors affecting unemployment include the pervasive economic stagnation, the growing population, the smaller number of workers who go abroad to find work, the growing number of returnees from the Gulf, the growing number of foreign workers, disparities between educational levels and market demand, and insufficient job hunting information (jobs wanted and job offer publications). The Gulf war had an especially strong impact, causing an estimated 350,000 workers to return to Jordan from where they had been working overseas. Because the economy was very weak at the time, post-Gulf war unemployment rose above 25% (UNICEF Situation Analysis, 1993).

The unemployment rate is especially high among the young. In 1991, 23.6% of people from 20 to 29 years of age (18.3% of men and 45.3% of women) and 20.6% of young people from 15 to 20 years of age (18.1% of young men and 53.1% of young women) were unemployed. The unemployed from 20 to 29 years of age account for 59% and those from 15 to 20 account for 11.0% of the unemployed population (Ministry of Planning, Economic and Social Development Plan, 1993-1997). The fact that young people with higher education cannot find jobs is an especially serious concern.

## 3) Emigration of foreigners in search of jobs

One of the characteristics of the Jordanian employment situation is the number of workers who emigrate to find employment. But while many Jordanians leave Jordan to find jobs in the Gulf, there are also many foreign workers (mostly Egyptians) who come to Jordan to find work.

The number of Jordanians who go overseas to find work was estimated in 1990, before the Gulf war, at 275,000 in the Gulf and 340,000 around the world (World Bank, Poverty Assessment, 1994). Jordanians who go overseas to find work are generally highly educated and skilled and find highly paid jobs; their

remittances back to Jordan long sustained the Jordanian economy: until the Gulf war, these remittances were equivalent to 20% of Jordan's GDP. It can be said that jobs overseas provided employment to workers who, despite their high educational levels, could not find suitable employment in Jordan.

The number of foreign workers in Jordan in 1991 was estimated by the Jordanian government at 165,000, though other estimates put the figure at from 200,000 to 250,000. The hiring of foreign workers is only allowed in cases where suitable Jordanian workers cannot be found to perform the work, and a work permit is required; however, many foreign workers do not have legal working papers. Though some foreign workers in Jordan are semi-skilled or skilled, most are unskilled manual laborers employed for the most part in agriculture and construction.

#### 4) Problems of the employment situation

The first factor determining the future of the employment situation is population growth. As the working age population is growing at a faster rate than the demand for workers, unemployment is likely to continue to grow in the future. Jordan's young population in particular raises concerns that the young people's unemployment rate will continue to rise.

Until now, many Jordanians went abroad to find work and the government encouraged workers to send money home, but there are limits to dependence on job-hunters' emigration. Nor can Jordan count on demand for foreign workers to grow elsewhere outside of Jordan. Overseas work tends furthermore to be determined by other countries' politics and labor and immigration policies, leaving many attendant uncertainties. The wisest course is probably to foster domestic industry in such a way as to eliminate dependence on workers' emigration to find work.

Jordan's bloated public sector is also a dilemma. The underlying reason for the swelling ranks of Jordan's public job holders is the private sector's underdevelopment, which obliges the government to create jobs to absorb surplus labor. Because the public sector tends to be inefficient, however, and wages do not always reflect market levels, public sector wages and salaries also influence pay scales everywhere else. The government's being a major employer creates a vicious cycle by draining talent and hindering the private sector's growth. Long-term job market stability depends inescapably on fostering pri-

vate industry and creating jobs, improving efficiency, and establishing productivity-linked pay scales.

The absence of middle-echelon people in every sector is yet another problem. In technical fields, for example, Jordan has engineers and unskilled workers, but no semiskilled workers or craftsmen between the two poles. Intermediate managerial field staff are similarly lacking in the public sector. In education, there is a greater lack of school staff who actually teach than of administrative staff. In every field, in other words, there is a shortage of the people who actually carry out the work. This lack of middle-echelon personnel hinders labor's appropriate allocation, industry's sound growth, and thereby the labor market's stability.

#### 5) Employment programs and the future agenda

The government has taken action to stabilize the employment situation by proposing and implementing the following measures: providing financing for small-scale businesses, assisting Jordanians working overseas to find jobs (at home), regulating the influx of foreign workers in accordance with labor demand, tailoring the educational system more closely to the labor market's needs, and conducting more and better job market-related surveys.

In the long term, the existing job market, which has been heavily dependent on job seeker emigration and the public sector, must be restructured and the private sector fostered in order to provide suitable job opportunities. Aid in this area is needed to administer small-scale income and job creation projects for the unemployed.

Efforts must also be made to foster the missing middle-echelon workers in every sector and to rectify the employment structure. This will require better adaptation of vocational training and human resource development planning to industrial job market requirements. Though adequate statistical surveys on the labor market are not yet available, collecting and providing relevant information can be expected to facilitate job hunting and the eventual hiring of more workers.

### (3) Poverty

#### 1) Poverty's historical and economic background

Poverty was not a very serious problem from the 1970s, when the Jordanian economy was strong, until the early 1980s. It did become serious, however, beginning in the mid-1980s, as economic stagnation set in both domestically and internationally. And as growing military expenses put pressure on the budget, labor became dependent on job creation by the public sector, the private sector stagnated, and money was invested inefficiently: the economy worsened and poverty became a conspicuous problem. On top of it all, a drop in per capita GDP caused by population growth outpacing Jordan's ability to increase production capacity, the Gulf war's impact on the Jordanian economy, and the growing number of returnees further aggravated the plight of the poor.

#### 2) Poverty in Jordan today

The absolute poverty line is defined in Jordan as a monthly income of 97 JD (not including rent: the figure is 119 JD if rent is included), and the extreme poverty line as a monthly income of 61 JD (for a standard family of 6.8 members). In government statistics for 1992, 21.3% of Jordanian families were defined as living at or below the absolute poverty line and 6.6% at or below the extreme poverty line. The World Bank's survey defines 19.8% of the Jordanian population (30% in rural villages, 15% in the cities) as living at or below the poverty line. Though the definition of poverty and setting of the poverty line are open to various interpretations, and some discrepancy is observed between the sets of statistical data, the poor can nonetheless be estimated at roughly 20% of Jordan's inhabitants. Recently, structural adjustment policies have made their impact felt, and some observers feel that the percentage of poor in the population is growing and that the gap between the rich and the poor is widening increasingly. The absolute number of the poor is said to be further increasing with growth of the population, especially the younger population.

In general, the poverty rate is higher among those who work in the private sector than among those employed in the public sector. Poverty rates are highest among those engaged in agriculture. Hence the incidence of poverty is higher in rural villages than in cities. White collar poor are almost nonexistent. Hardly any discrepancy between men and women is seen in poverty rates.

The establishment of social infrastructure and services becomes an issue whenever there is poverty. The many poor in cities are frequently at a disadvantage in terms of access to housing and residential infrastructure, for example. Since three-quarters of the poor in Jordan today own their own dwellings, however, housing does not appear to be a major problem. Yet poor households tend to cut back their expenditures for education and health, and the quality of life in poor households is still a matter of concern. And as poverty becomes more serious, crime rates and juvenile delinquency also tend to increase.

### 3) Factors in poverty

High population growth, job instability, and low educational levels can be cited among the factors with a high correlation to poverty, in addition to pervasive economic stagnation.

Population growth is high in Jordan, and the percentage of young people in the population very high: 41% of the Jordanian population in 1991 was under 15 years of age. The large segment of the population that has not attained working age and the withdrawal from the workforce of many women when they marry means that the rate of participation in the workforce is only one-fifth that of the population as a whole. The large number of dependents of the average wage earner is another factor affecting poverty in Jordan; according to World Bank statistics, the larger the family, the higher the poverty rate: the incidence of poverty in a household of 12, for example, is five times as high as in a household of six members.

Employment is another important consideration affecting poverty, but the average unemployment rate is by no means higher among the Jordanian poor (6%) than it is among the general population (World Bank, Poverty Assessment, 1994). Low wage levels, rather than unemployment, are apparently the cause. Household size also appears to be associated with this factor: even when the householder or householders have jobs, income is apparently often insufficient to ensure a minimum subsistence level for the entire household.

The adult illiteracy rate among the poor is 42%, considerably higher than the Jordanian average; the lower the educational level, the higher the tendency toward poverty. Education is closely tied to employment, and lack of an education counts as a factor inducing poverty.

The increase in the number of post-Gulf-war returnees from workplaces overseas is yet another poverty-aggravating factor. According to a 1991 government survey, 33% of returnees live at or below the poverty line. Though returnees generally have high educational levels, their unemployment rate is high because they cannot readily find work upon their return to Jordan. The returnees include many students, and their poverty may, depending on conditions in the labor market, become a problem of increasing gravity.

#### 4) Antipoverty programs

The government's National Assistance Fund distributes money to the poor and the unemployed. In 1993, the maximum allowance per unemployed household was 50 JD a month, dispensed in cash. Other government-provided safety nets for the poor include a health card and food coupons; some reports state that only 60% of those eligible for food coupons apply for them, so questions remain concerning their efficacy and targeting (of beneficiaries). The Housing and Urban Development Corporation provide housing and home loans to people with low incomes.

Among the antipoverty measures carried out through cooperation between the Jordanian government and foreign donors is a World Bank-supported project called the Employment & Development Fund. Started about four years ago, it provides small-scale financing to the unemployed and assists income generating projects. It is administered through a tie-up with an NGO engaged in community activities. Other aid agency cooperation now being planned includes ODA aid for small-scale income generating projects and UNICEF aid to establish poverty-related statistics.

#### 5) The future agenda

Macroeconomically speaking, a solution to poverty will basically be found by the continuous growth of the entire Jordanian economy. The World Bank estimates that poverty can be eradicated by the year 2005 if Jordan can maintain 7% annual economic growth. This is probably not achievable through the government-led economic policies of the past or through dependence on overseas remittances. Jordan must foster its domestic industry and create jobs at a higher rate than population growth.

There is also a need to promote aid for small-scale projects aimed at estab-

lishing the independence of the poor and to improve safety nets for the socially disadvantaged. The empowerment of the poor must be sought through education and vocational training. It would be effective for antipoverty programs to take advantage of NGOs, which are very flexible and have close ties to local communities. The improvement of infrastructure in and around the cities will also become a problem as the poor become more numerous in urban areas and cities' suburbs sprawl outward geographically.

#### (4) Population

##### 1) Jordan's population today

##### (a) Rates of population increase and rate changes

Jordan's annual population growth rate was 4.1% from 1980 to 1994 (source: UNICEF The State of the World's Children, 1996); this is higher than the 2.9% rate from 1965-1980. This high figure by current world standards (4.1% from 1980 to 1994) is the fourth highest population growth rate on the UNICEF list in The State of the World's Children of 150 countries, after Oman (4.5%) and Saudi Arabia and the United Arab Emirates (both 4.3%).

Though declining, the rate of natural increase in Jordan's population, 2.8%, is still high when you exclude the effect of such factors as net immigration and the return of Jordanian workers from overseas. If Jordan's population continues to increase at this rate, its 1992 population of 4.3 million will double by the year 2011.

Furthermore, the age structure of Jordan's population is changing: the percentage of young people (under 15 years of age) in the general population is declining, from 51.6% in 1979 to 43% in 1991. Conversely, the proportion of people 15 to 64 years of age has risen from 46.4% in 1979 to 54% in 1991. This is a phenomenon that occurs in the process of declining population growth; young people are expected to continue to become a smaller percentage of the whole population with time, but currently, 75% of the population (male and female counted together) is under 30, indicating that young people still account for a very considerable part of the population and steps must be taken to create jobs, among other measures.

Jordan's population is moreover heavily urbanized, and this trend is seen as likely to get stronger. In 1991, 77% of Jordan's inhabitants lived in urban areas; 20% lived in rural areas, and the remainder (3%) in the so-called "badiyah (desert regions). The majority of city dwellers live in one of three major urban areas: Amman, Irbid, and Zarqa.

Between 1985 and 1991 the population density rose markedly (40.5 inhabitants per square km) from 27.8 inhabitants per square km at the beginning of this period. Today, central Jordan's population density is 127.3 inhabitants per square km; northern Jordan's density is 37.7, and southern Jordan's is 7.8 inhabitants per square km.

#### **(b) Jordan's high population growth rate**

While Jordan's infant mortality rate has fallen dramatically in the past 30 years, and the birth rate has been gradually sinking (6.6% from 1980 to 1983, 5.6% from 1987 to 1990), average male and female life expectancy have risen from 48 years in 1960 to 68 years in 1994. Combined, these changes substantially diminish the general mortality rate.

In other words, Jordan's rate of population increase, still high, is the result of a notable decrease in mortality while the birth rate has declined at a much slower pace.

#### **(c) Total fertility rate and contraception**

One of the background factors in Jordan's high rate of natural population growth is the total fertility rate (TFR: the number of children born per woman from age 15 to age 45), which is a very high 5.6 per woman. Though Jordan's total fertility rate has certainly been sinking since the 1970s, a demographic health survey (the Jordan Population and Family Health Survey) conducted for the Jordanian government in 1990 by IRD/Macro International Inc., a U.S. polling firm, reports that in 1990 the TFR was, on average, 1.7 child higher than the number of children Jordanian women said they wanted to have (average 3.9). This suggests the potential for promotion of family planning.

Generally, some information about family planning is transmitted by the mass media; according to the above mentioned 1990 survey, almost 100% of



married women knew about the existence of family planning, but the gap between this percentage and the percentage of women who actually practice it was very wide.

From 1983 to 1990, the percentage of married women who used some method of contraception rose from 26.0% to 35.0%. Compared to Morocco, Tunisia, Egypt, and other countries where similar demographic health surveys were carried out, Jordan's situation is characterized by the prevalence of traditional contraception methods and low rates of use of modern methods.

Regional disparities among governorates in the rates of contraceptive use are not very great, but there is a nearly 20 percentage point gap between large cities, where the rate is 48%, and rural areas, where it is 29%.

The higher women's educational level, the lower their total fertility rates. Women with more schooling also tend to have the largest difference (1.9 child) with respect to less educated women in the number of children they wish to have. Most notable in connection with the rate of use of contraceptives is the roughly 10% difference in usage frequency between those who have not received any education at all and those who have received some education (even if not beyond elementary school); by comparison, the gap between those who have received secondary or higher education and those who have received only an elementary school education is minuscule: less than 1%. In other words, almost no difference is apparent in the rate of contraceptive use according to degree of schooling in those who have received any education at all.

## 2) Government programs

### (a) Demographics in the government's five-year plan, etc.

Jordan's population dynamics, as we mentioned above, have been heavily influenced by such political factors as the rapid population growth caused by two waves of Palestinian immigration. It is clear that future population increases will seriously inhibit economic growth, given the context of economic recession with drastic reductions in foreign aid from Jordan's Arab neighbors and a persistent balance of payments deficit, on top of the return of many migrant workers in the wake of the Gulf war.

Under the circumstances, the Jordanian government—which was not formerly inclined, due to religious and other constraints, to accord family planning the status of important policy component—has come to regard the population growth rate as a very important national issue. This is mentioned in the government's five-year social and economic development plan and in the statement by the Minister for Social Development representing Jordan at the 1994 Consultative Group meeting, when he stated the Jordanian government's intention to attack the problem of Jordan's growing population, citing it as one of the key items on his government's agenda, together with programs to reduce unemployment and combat poverty. Recently, the Jordan National Population Committee has been set up to be the government's central agency responsible for population issues and family planning.

*In the five-year social and economic development plan, two specific measures are mentioned: promotion of birth spacing (adjusting the length of time between the birth of one child and the birth of the next) and introduction of population education.*

It should be noted that, while these allusions have been made to the importance of programs to address the population problem in the government's five-year plan and conference materials prepared for the 1994 CG meeting, the language in these statements declares that Jordan's population policy and programs are premised on the non-infringement of Jordan's cultural values.

### 3) JAFPP and QAF programs

The Jordan Association for Family Planning and Protection is the non-governmental organization carrying out the most energetic programs related to demographic issues in Jordan. It has ten centers in Jordan's largest cities and is run by a staff of more than 100 people. The medical staff accounts for 70% of the personnel, which is, moreover, predominantly female. It is widely agreed that this makes the JAFPP's centers psychologically more accessible to women and contributes to the effectiveness of the organization's activities, which consist of providing demographic and family planning information and services, medical examinations for pregnant women, and preparation for childbirth.

The JAFPP carries out its rural health care activities in two ways: it either provides services at its own rural centers, or under an agreement with the Queen Alia Fund (an NGO affiliated with the royal family), it carries out

health care services at JAFPP centers located inside rural health care centers built and operated nationwide by the QAF.

The QAF, headed by Princess Basma, is an NGO that promotes rural development. Its very broad range of development-related activities includes rural health services, the development and promotion of agriculture, vocational training and educational programs for women, and greening projects/environmental campaigns.

#### 4) Remaining tasks

Further dissemination of information about family planning and related topics

Jordan's rate of population growth is declining, as we mentioned, but given the major decline in mortality, even today's population growth rate, though still high, can be interpreted as one step in the process leading to a lower population growth rate. Nevertheless, given the severity of Jordan's future resource allocation situation in terms of water and other resources, it is imperative that Jordan make more rapid progress toward lower birth rates.

To make this possible, it is important first to decrease the number of T.F.R. through implementation of family planning that better reflects women's view. As we mentioned, Jordan's total fertility rate is declining, albeit gradually, and for a decade the rate of contraception use has been rising gradually, though it remains low. Furthermore, awareness of family planning is spreading, apparently associated with the rapid advances in the level of women's education in Jordan. In order to increase the rate of use of family planning (including the rate of contraceptive use) and lower the total fertility rate, efforts are required to further disseminate knowledge, not only in women but also in men, on reproductive health with special reference to maternal and child health care via Mother and Child Health Centres, and other related institutions.

**Table 1 Rates of contraceptive use in Jordan**

Year	1976	1983	1990
Rate of contraceptive use Total (%):	22.8	26	35
Modern methods (subtotal)	17.3	20.8	26.9
Oral contraceptive	11.9	7.8	4.6
IUD	2.0	8.3	15.3
Surgical sterilization	1.9	3.8	5.6
Condom	1.4	0.6	0.8
Other methods	0.1	0.3	0.6
Traditional methods (subtotal)	5.4	5.3	8.1
Periodic abstinence	2.1	2.9	3.9
Withdrawal	3.3	2.4	4.0
Size of sample	3455	3735	6184

1976: Jordan Fertility Survey: JFS

1983: Jordan Fertility and Family Health Survey: JFFHS

1990: Jordan Population and Family Health Survey: JPFHS

**Table 2 Comparison with other countries' Demographic Health Surveys**

	Rate of contraceptive use	Modern methods	Traditional methods
Egypt (1988)	36.7	35.4	1.3
Morocco (1987)	35.9	28.9	6.9
Tunisia (1988)	49.8	40.4	9.4
Jordan (1990)	35	26.9	8.1

Note: "Traditional method" data from Egypt & Jordan do not include breast feeding.

Source: JPFHS (1990)

**Table 3 Effect of geographical factors and mother's highest educational level on rates of contraceptive use**

	Rate of contraceptive use	Modern methods	Traditional methods
<b>Region</b>			
Amman	48.3	33.8	14.5
Zarqa & Mafrqa	39.9	25.6	14.3
Irbid	33.7	20.9	12.7
Barqa	25.5	20.1	5.5
Southern Jordan	31.8	20.7	11.1
<b>Highest educational level</b>			
No schooling	31.6	20.7	10.9
Elementary	42.6	30.5	12.0
Secondary	42.2	27.8	14.4
Higher than secondary	43.2	28.6	16.6

Source: JPFHS (1990)

## (5) Health

### 1) Health status in Jordan today

The basic indices of health in Jordan have shown marked improvement over the past 30 years: the average life expectancy has risen from 48 in 1960 to 68 in 1994 (source: UNICEF, *The State of the World's Children*, 1996). This is higher than the average for Arab countries, 62.1 years.

Infant mortality (deaths before 1 year of age) has decreased remarkably during the 1980s and 1990s; in 1991, the figure was 33.8/1000. Child mortality (deaths under five years of age) is similarly low: 38.8/1000 in 1991 (source: the Economic and Social Development Plan).

Jordan's rate of maternal death in childbirth, 40/100,000, is quite low considering the high total fertility rate (5.6 children in 1990). The major cause of this low maternal mortality rate is the high rate of childbirth at hospitals or other medical facilities or attended by trained health personal: 87%. On the other hand, however, this figure is merely an estimate, and because precise

data on the number of deaths in childbirth at the national level has not been the subject of any surveys, some observers propose their own higher estimates for actual maternal mortality.

Whatever the case, in the past 30 years, Jordan's health indices have undergone substantial improvement and compare very favorably with other countries, even middle-income economies.

Concern has recently mounted, however, over the spread of poverty triggered by the post-Gulf war economic recession and declining indices of nutrition. Particularly in women, lower rates of intake of vital nutrients can lead to the birth of more low-birth-weight infants.

## 2) Jordan's public health agencies & institutions today

Jordan's national health indices are at extremely high levels, as we said, and as are, on a per capita basis, the health care systems that support them. Jordan has 1 doctor for every 621 inhabitants (1994 data), slightly more than Japan.

A nationwide referral system for tertiary care is also in place in Jordan's medical centers. In 1991, 97% of Jordanians (98% in the urban areas, 95% in rural areas) had access to health care services.

Primary health centers (PHCs) are located in 315 locations throughout Jordan at the village level; by definition, they are the bases for dispensing primary health care. Their basic services include departments of general internal medicine and obstetrics and gynecology, and about 40% offer dental services as well. Each department has one physician (or a midwife, in the case of obstetrics and gynecology), one nurse, a pharmacist, a medical record keeping and billing clerk, and an assistant.

The Primary Health Care Project, funded from 1985 to 1993 through a loan from the World Bank, established comprehensive health centers (CHCs) equipped with x-ray equipment, small-scale emergency medicine and laboratory, and supplementary pharmacological facilities, in addition to the basic primary health care services. These are now located in 30 locations throughout Jordan (as of 1994).

With the purpose of further complementing these services, village health centers (VHCs) have been set up in 261 more remote localities (1994 data). Normally, these are permanently staffed by female or male nurses, and PHCs doctors make the rounds periodically.

Mother and child health centers (MCHCs), which additionally provide family planning services, are established as annexes to PHCs and CHCs; there are 268 MCHCs nationwide.

As institutions providing secondary medical care, regional hospitals form the core of rural and community medicine. At least one is located in each governorate. Their services consist of general internal medicine, obstetrics and gynecology, pediatrics, otorhinolaryngology, dentistry, ophthalmology, general surgery, radiology, clinical testing, drug dispensary, and drug storage. Six army hospitals, called the Royal Medical Service and located in various regions, offer virtually the same services as regional hospitals.

The medical institutions that provide the most advanced care include three public hospitals plus a number of private hospitals.

### 3) Private health care agencies and organizations

Private health care's share of total national health-related expenditures is rising; the cost of private care is said to be five times as high as that offered by public care providers. Yet when they get sick, 40% to 50% of Jordanians are nevertheless said to first choose private health centers rather than their public counterparts for primary care.

The choice of private health care providers by many Jordanians, despite the much higher cost, is attributed to a wide qualitative gap between private and public institutions. One factor responsible for this gap may be the higher pay levels in private medicine, prompting the most talented medical staff to enter the private sector. This trend is seen not only in advanced medicine and tertiary care but even in primary health care.

### 4) The government's health budget

The Economic and Social Development Plan came into force in 1992; under the impact of the massive influx of returnees from the Gulf in 1991, the Minis-

try of Health's budget grew 30.9% from 1991 to 1992. Thereafter, in 1993 and 1994, the pace of this growth slowed, to 1.9% and 3.3% respectively.

#### 5) Tasks remaining to be accomplished

Jordan's health services require qualitative improvement; room for quantitative improvement in health services may also remain in the more sparsely populated south, where birth rates are still high and more could be done, especially for the nomadic Bedouins. Some efforts have already been launched by the above-mentioned QAF (an NGO affiliated with the royal family) and non-governmental community health care providers to offer the northern nomads periodic medical checkups and treatment based in mobile medical centers, but the southern region still remains under-served. Given that more than 80% of Jordan's population is urbanized, the potential for expansion of services in the urbanized areas found mostly in the north is undeniable. But it is especially in the south, as frequently mentioned by UNICEF and other observers, that further efforts are required to ensure the fair distribution of medical services in terms of the number of doctors assigned and the quality of facilities and other aspects, although health care facilities in the south, as they are in the north, are placed under a system of referral up to the level of tertiary care systems.

It is also essential and necessary to strengthen and improve the organization and administration of health care (including a health insurance system) under the Ministry of Health's jurisdiction. Public health care organizations are probably overstaffed, with 20% of the staff performing administrative, not medical, duties, while the number of hospital staff and especially nurses is insufficient. Most doctors and medical staff are, moreover, concentrated in Amman and the central urban areas, aggravating the disparity between rural and urban access to health care services and the geographical gap in the quality of care.

Because consultation fees are very low, health care service fees cover only 12.7% of the total care expenditures of participating centers; the fact that these expenditures account for more than 60% of the Ministry of Health's budget is clearly a ministerial budget-constraining factor. But it would be very difficult for the government to raise these fees, since to avoid serious direct impacts on segments of the population that would suffer disproportionately,



structural adjustment policies must demonstrate meticulous concern for the poor.

In anticipation of measures to improve the quality of care, the government increased the salaries of doctors and other hospital specialists by 50% to provide incentive for them to increase the quality of the care they provide, but it will still be extremely difficult to further narrow the gap with respect to private health care providers.

With access to public health care institutions now at conceivable maximums while on the other hand one-half of the Jordanian public strongly prefers higher quality private care, even at much higher prices, it is necessary, as mentioned in the Economic and Social Development Plan, to seek both improvement in the quality of health care services at public institutions and quantitative expansion in the capacity of and access to private sector primary health care.

#### (6) Women in development

##### 1) Gender gaps in Jordan

Over the last few decades, gender gaps in Jordan, judged according to basic social indices, have rapidly diminished to the point that they have now virtually disappeared: infant mortality (before the age of 1 year) is 37.3 per thousand for females and 36.4 per thousand for males and child mortality (before the age of 5 years) is 42.7 per thousand for girls and 42.2 per thousand for boys; the life expectancy ratio is 106:100 (female to male) (UNICEF, The State of the World's Children).

Rates of school enrollment and promotion to higher grades in secondary and higher education are high for both males and females, and in the period 1986-1993, female rates were higher: 55% compared to 51% for males.

##### 2) High total fertility rates, low rates of female presence in the work force

Although the rate of women's participation in the workforce normally tends to increase as a society grants women greater access to education, the percentage of women in the workforce in Jordan is very low and their unemployment rate is high. The rate of women's participation in the workforce is much lower

in Jordan (10% in 1987) than in Iraq (23%), Lebanon (25%), and the United Arab Emirates (21%). Moreover, there is a gap in Jordan between rural (5.7%) and urban (9.9%) female worker rates (World Bank report). The unemployment rate of Jordanian women, on the other hand, is three times higher for women than for men in Jordan and that 60% of unemployed women have higher education versus 15% of unemployed men.

3) Programs promoting women's role in development and remaining tasks on the agenda

The Queen Alia Fund, mentioned in (4), offers cooperation in regional development in order to accommodate the needs of these rural women and in order to promote women's progress in development in rural areas, directing its efforts toward the rural economically disadvantaged social groups. Under the direction of King Hussein's sister, Princess Basma, the QAF administers community development centers scattered throughout Jordan, where training is provided in gardening, livestock raising, bee-keeping, etc., for the purposes of income generation and offers small-scale financing intended to seed the starting up of smaller businesses at the community level.

Also, in response to Princess Basma's proposal, the government established a Jordan National Committee for Women in 1992, and after meetings among experts and researchers in women's issues, a study it conducted in 1993 was drafted into a paper released in September 1993 called "The JNCW's National Strategy," which examines the purposes and orientation of women in development programs in the areas of legislation, policy, jobs and the economy, society, education, and health and medical care.

The contents are extremely diverse, ranging from abolition of discriminatory legislation to promotion of women's participation in the labor market, improvement of women's social standing, further reinforcement of access to educational opportunities, and many other issues. The promotion of women's participation in the labor market is an area of special emphasis, inasmuch as in the post-Gulf-war recession, the unemployment rate of women is three times that of men, an even wider gap than before, and given the high percentage of dependents in the population, encouraging women to find jobs is a way to reduce the dependency rate and alleviate poverty.

It also shows adequate understanding to lower the population growth and fertility rates in order to lessen the pressure exerted by population growth on Jordan's meager natural resources.

Yet at the same time, policy statements on these subjects repeatedly stress the importance of protecting women as housewives at home and of protecting the family, and stress that the goal of development for women does not contradict these values.

## Social-Development-Related Indices

**Table 1 Literacy rates**

Year	1960	1970	1975	1980	1985	1990	1993
Literacy rate (%)	32.0	59.0	62.0	68.0	75.0	74.2	84.0

Source: National Center for Educational Research and Development, Social Development in Jordan, 1992 (1960-1990)  
Department of Statistics (1993)

**Table 2 Unemployment rates**

Year	1980	1985	1986	1987	1988	1989	1990	1991
Unemployment rate (%)	3.5	6.0	8.0	8.3	8.8	10.3	16.8	18.8

Source: World Bank, Poverty Assessment, 1994 (Original source: Ministry of Labor, Annual Reports)

**Table 3 Male and female unemployment rates for different age groups**

(1991) %			
Age group	Male	Female	Average
15 - 20	18.1	53.7	20.6
20 - 29	18.3	45.3	23.9
30 - 39	9.1	10.3	9.2
40 - 49	11.4	7.7	11.2
50 - 59	13.2	6.0	12.9
60 -	11.4	2.3	11.3
Total	14.5	34.2	17.1

Source: Ministry of Planning, Economic and Social Development Plan, 1993-1997

**Table 4 Population-related social indices in Jordan and other Middle East countries**

Country	Under Five Mortality (%)		Adult literacy rate (%)				Gross elementary school enrollment rate (%)				Secondary school enrollment rate (%)	
	1960	1994	1970		1990		1960		1986-93		1986-93	
			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Jordan	149	25	63	32	91	73	-	-	105	105	51	55
Iraq	171	71	48	13	66	38	94	36	96	82	52	33
Morocco	215	56	33	9	52	26	69	28	80	57	40	29
Egypt	258	52	57	30	61	34	79	52	110	93	88	71
Syria	201	38	60	20	82	49	89	39	113	101	54	43
Saudi Arabia	292	36	15	1	69	44	32	3	81	75	56	46
UAE	240	20	24	7	77	76	-	-	119	117	69	76
Israel	39	9	93	83	95	89	99	97	94	94	83	89

Country	Annual rate of population increase		Average life expectancy		TFR	MMR
	1965-80 (%)	1980-94 (%)	1960	1994	1994	1980-92 (/100,000)
Jordan	2.7	4.1	48	68	5.4	48
Iraq	3.3	3	50	66	5.6	120
Morocco	2.5	2.2	48	63	3.6	330
Egypt	2.2	2.4	47	63	3.7	270
Syria	3.3	3.5	51	67	5.7	140
Saudi Arabia	4.6	4.3	46	69	6.2	41
UAE	13	4.3	55	74	4.1	-
Israel	2.8	2.4	69	76	2.8	3

Source: UNICEF, The State of the World's Children (1996)

## **2-5 The Environment**

It is no exaggeration to say that, thus far, industrial pollution has had almost no visible effect on Jordan's people or natural resources. Considering, however, the impact of Aqaba Port's development on the Gulf of Aqaba and the pressure of population growth in the urban areas, continued efforts on the government's part will be needed to maintain the status quo.

As mentioned in section 2-3(3), about 40% of all the water used in Jordan is flowing surface water from rivers and streams, and the remaining 60% is underground water. Within the limits of what is possible to recycle, underground water is recycled (56%), and the remaining 44% is "overpumped." In other words, one-fourth of Jordan's water supply is used each year without any possibility of its being replenished.

About 70% of water consumption is used for irrigation; household water for drinking and washing accounts for about 20%. But at the present pace of growth in demand due to population growth, the present demand for household water is expected to roughly double by the year 2005.

This is why the Jordanian government has regarded the recycling of treated waste water as an important task in order to prevent the contamination of Jordan's main source of water, underground water, and enable it to be used effectively.

But because the per capita water supply is low, as explained above, the concentration of organic pollutants in sewage is high, hindering its reuse; a radical method to rectify the imbalance between the rates of use of flowing above-ground water and underground water has yet to be found. The discovery of such a method will be one of Jordan's major tasks in the future, as the depletion of its water supplies is a real possibility.

Maintaining the water level of the Dead Sea, a major tourist resource, is another serious problem, in addition to the serious degradation of underground water quality, in terms of the simultaneous subsidence of underground water due to over exploitation, salinization of fresh water, and accumulation of salt in soil.

The country's main water source, the Jordan River, has seen its salinity

and its pollution increase in recent years, affecting communities' ability to secure water for farming and living.

Jordan's land is 91% desert or semi-arid. How much of its total area is still covered by forests and how much the forests have shrunk are not known, but the government is promoting afforestation by distributing seeds at no cost in order to check the further spread of desertification. Thanks to these efforts, 700 square km were successfully greened as of 1990. But even at present, it remains unknown what percentage of Jordan's total land area is wooded, and woodland protection zones are no more than 1.1% of all land.

In addition to the problem of water supplies, pressure on urban areas due to population growth is creating a need to improve such services as treatment of residential area effluents, garbage, and other wastes.

Industrial and urban pollution are yet another area where action is urgently called for to treat dust and exhaust gases in the electric power industry, from phosphate fertilizer manufacturing plants, and to control dust in general.

Still other measures are needed in connection with the enlargement of Aqaba Port to protect coral reefs, regulate waste oil disposal, and control dust.

In 1980, the government set up an Environment Bureau within the Ministry of the Urban and Rural Environment to take charge of Jordan's domestic environmental problems. In 1991, the ministry enlisted the cooperation of officials from the ministries of Agriculture, Irrigation, Energy and Mineral Resources, Health, Social Development, and other central government ministries and agencies, as well as of representatives and authorities from local governments, universities, and similar institutions, to draft a National Environmental Strategy and define the orientation of Jordan's environmental programs. Upon the enactment shortly thereafter of the Environment Protection Act, the aforementioned Environment Bureau became the Public Corporation for Environment Protection and all officials of the previous bureau became employees of the new public corporation, which is now the entity primarily responsible for environmental protection in Jordan.

With regard to water, which is such an important area for Jordan, Jordan's environmental legislation is complete, but with regard to air pollution, Jordan's

regulations on harmful emissions and air quality standards are not yet set up appropriately. Nor does Jordan presently have adequate regulations concerning the disposal of wastes in the soil. Enactment of regulations in these areas is expected to become necessary eventually; though the situation is not yet serious in any particular area, a complete legal framework will be needed to regulate air pollution and toxic wastes as Jordan's industry (especially heavy industry) grows.

### **3. Foreign Assistance Trends**

#### **3-1 Bilateral ODA**

##### **(1) Japanese ODA**

Japan has been giving assistance to Jordan for some time, mainly in the form of loan assistance and technical cooperation. Spurred by the disbursement of emergency commodity loans during the Gulf crisis, net outlays in 1991 reached \$430,670,000, second only to Egypt in the region. Japan's outlays in 1992 were the highest in the region at \$126,360,000. (See Appendices, Table 15, Table 16.)

Loan assistance was extended and directed primarily at agriculture, telecommunications, transportation. In fiscal 1990, emergency commodity loans of ¥14.6 billion were granted and assistance was provided for the industry and commerce structural adjustment plan of ¥10.9 billion. In 1991, as mentioned above, emergency commodity loans of ¥59.5 billion were made, and by fiscal 1993, the cumulative total (on an exchange of notes basis) was ¥167.5 billion, behind only Egypt and Turkey in the Middle East.

Technical cooperation was extended and directed primarily at transport, telecommunications and broadcasting, and energy. Courses in systems engineering and electric power generation are being held through a third-party training scheme supported by Japanese assistance in which Jordanian implementing agencies bring together and train trainees from other countries in the region. Since fiscal 1994, a training course in electric power generation has been held for Palestinians. In other programs, within the framework of active contributions to the Multilateral Middle East Peace Conference, development surveys are being undertaken in connection with a plan to turn brackish water



into fresh water and a tourism development plan.

Since fiscal 1993, the decline in the per capita GNP has made Jordan eligible for ordinary grant aid; during that same year, a grant of ¥972 million was made as aid to increase food production and to improve urban sanitation in Amman. In the following year, fiscal 1994, grants were substantially increased to a total of ¥3,032 million: in addition to providing more and better medical equipment and supplies and water system repair equipment and supplies, they included a ¥1 billion non-project grant.

## (2) Germany (GTZ)

The GTZ's policy on aid to Jordan is to regard the strengthening of the Jordanian government's policy making—which is rather weak at present in Jordan—as its highest priority.

German aid is therefore aimed at establishing macroeconomically based coordinating systems to make the central government's policy making more organizationally functional in such fields as agriculture, water, and industry and trade.

When the GTZ carries out projects in any area, it sends experts not only to the ministries directly in charge of the area (especially agriculture and water), but also to related organizations and institutions, because coordination among them otherwise is insufficient.

The GTZ has set up and upgraded statistics sections in the Ministry of Planning and the Ministry of Industry and Trade, among others, supplying equipment and sending experts, and even now continues to send experts regularly to assist the Jordanian Department of Statistics.

As priority areas for cooperation, the GTZ focuses on agriculture, irrigation (water supply and purification), tourism (preservation of the Petra ruins), and health, in addition to the above-mentioned organizational and structural improvements. In agriculture in particular, the GTZ is now carrying out the greatest bilateral aid of any international aid agency and cooperating in a vast range of fields, from export promotion to optimization of the use of agricultural chemicals, seed production, irrigation, and forestry.

### (3) USA (USAID)

Population, water, tourism, and trade and investment are currently USAID's four priority areas. Since the U.S. Federal budget cutbacks of 1995, however, cooperation in trade and investment has stagnated.

USAID has mounted its largest-scale effort in any developing country to assist Jordan in the area of population, where it has given high marks to the Jordanian government's efforts in response to the alarming findings of the 1979 census. In brief, USAID is optimistic about Jordan's demographic situation. Its programs include the dissemination of information about birth spacing through the public media, pharmacies, and other private-sector channels and the distribution of female contraceptives. Taking advantage of the fact that, recently, almost 90% of births take place in hospitals, USAID has also launched projects to provide postpartum care in local hospitals, inform women about contraceptives that are effective in birth spacing, and promote the distribution and use of these contraceptives.

In trade and investment, USAID provides mainly balance of payment support, and in other technical evaluations, etc., its cooperation is channeled through the World Bank.

From the 1950s to the 1980s, USAID carried out agricultural development projects in the Jordan Valley, where it built massive irrigation facilities. As far as irrigation of arable land is concerned, the limit has already been reached, and recently no new agricultural development programs have been undertaken.

In tourism, for the time being USAID's policy is to strive to instill wider knowledge of and participation in national tourism and environmental resource development through cultural and environmental resource management projects, and thereby to provide incentive to promote further efforts toward local community development.

In connection with water resources, USAID is providing aid related to participation and management in water supply. In relation to women's role in development, it is now carrying out a project aimed at fostering local tourism industries through the development of handicrafts and the like, mainly through the Noor Hussein Foundation (an NGO connected with the royal family), with

the object of increasing women's incomes.

#### **(4) ODA and other British government aid**

The priority areas of British ODA to Jordan are education, water, and telecommunications. Great Britain has been carrying out major ODA projects in education ever since Jordan's educational reform policy came into effect in 1988. Now it is mainly carrying out organizational cooperation tied to the World Bank's sector reform program.

In the future, it will offer large-scale aid related to education for the physically disabled.

The situation of Jordan's telecommunications services has also been regarded as requiring urgent attention. A study of the management of Jordan's telecommunications company TTC conducted by Price Waterhouse concluded that TTC needed major organizational reform and adjustments.

In other areas, such as women in development, following a report revealing that Jordan's rate of violent crimes against women is ten times the British rate, Great Britain is collaborating with a Jordanian NGO's campaign and training Jordanian police officers to combat this violence. Both programs are paid for out of British Embassy funds and are not included in British ODA.

Great Britain has also chosen as one of its major program areas the improvement of the organization of Jordan's Ministry of Social Development, Ministry of Health, and related ministries and agencies. A major project scheduled to begin next fiscal year will address women in development and will include an overhaul of the Ministry of Social Development's organization.

### **3-2 Multilateral Assistance**

#### **(1) The IMF**

The IMF has given Jordan loans for structural adjustment in cooperation with the World Bank, to address the economic difficulties in the latter half of 1988 stemming from the decline of foreign currency reserves and exchange rate instability. The basic policy package consists of budget deficit reduction, a

containment of credit expansion, a flexible interest rate policy stance, securing of export competitiveness, open-trade and non-protectionist industrial policy, and limitations on non-concessional loan.

The IMF first concluded a SDR60 million "standby arrangement" in 1989, under which an interim economic reform program started, which initially had been scheduled to run until 1993 but had to be suspended because of the Gulf War. In 1992, after the war, a new standby arrangement was reached for SDR60 million, and put into effect. In 1994, an agreement was reached on a SDR188 million Extended Fund Facility, and in November 1995, the Export-Import Bank of Japan co-financed a \$135 million structural adjustment loan covering the second and third year of EFF arrangements.

Judging that Jordan's performance in the EFF's second year was generally "on track," the IMF decided in February 1996 to increase the EFF to 201 million SDR. The policy objectives for 1996 are economic growth of 6.5%, contain the rate of inflation to less than 3.5%, reduction of the current-account and budget deficits to no more than 4% and 3.8%, respectively, and building up of foreign currency reserves. At the same time, it is understood that the government will address safety nets.

## (2) The World Bank

The World Bank began granting IDA loans to Jordan in 1962, then added IBRD loans. In the 1980s, the World Bank provided about \$100 million a year. The areas receiving financing for improvement include roads, railroads, and communications, electric power development, water resource development, water supply, sewage and other urban infrastructure improvement. From 1989 on, in the wake of Jordan's economic crisis, emphasis was shifted to structural adjustment loans, and project loans for water resources, transport and communications, and education and sanitation. The World Bank has provided 56 loans to Jordan, totaling \$1,272 million as of June 1995.

The Industry and Trade Policy Adjustment Loan (ITPAL) amounting to \$150 million was granted in fiscal 1989 with the object of rationalizing such import policy and investment promotion measures as simplification of tariffs. In the context of assistance to the key frontline countries during the Gulf Crisis that broke out shortly thereafter, the OECF and Export-Import Bank of

Japan each contributed the equivalent of \$75 million in co-financing in 1990. The World Bank granted an additional \$80 million as Energy Sector Adjustment Loan (ESAL) in 1993, which aims at supporting Jordan's effort to raise energy prices and put utility companies' finances on a sounder footing as well as to study the private sector participation; the OECF also contributed co-financing equivalent to \$80 million in 1994.

In 1994, an \$80 million Agriculture Sector Adjustment Loan (ASAL) was granted to facilitate the reduction of subsidies in agriculture, improve water resource management, etc. In 1995, Jordan was given an Economic Reform and Development Loan (ERDL) to carry out an economic reform and development plan designed for macroeconomic stabilization, reorganization of import tariffs, rectification of non-tariff barriers, and improvement of the investment environment. The OECF co-financed the equivalent of \$80 million with the latter loan. Together with the said co-financing of the Export-Import Bank of Japan with the IMF's EFF, contribution from Japan to assist Jordan in its balance of payment difficulties in the end of 1995 came to a total of \$215 million.

The World Bank is likely to emphasize the following in the future: i) the building of the foundations for a stable and growing Jordanian economy as the Middle East Peace process continues, ii) the improvement of infrastructure, especially development of water resources, and iii) the social sector, such as education, health and sanitation. Specifically, in conjunction with structural adjustment loans, the World Bank is expected to provide loans for projects in electric power, water resources, transport, and human resource development, and its efforts will be strongly colored by appeals for privatization and use of private capital. In connection with financing, surveys envisaging Jordan Rift Valley development and studies related to poverty, women in development, and the environment are also expected to be conducted by the World Bank.

## IMF Structural Adjustment Support

### Basic objectives

1. Rapid growth with low inflation
2. Improvement of Jordan's external position
3. Restructuring of the economy in response to the harsh international environment

### Objectives of EFFs from 1996 to 1998 (SDR200.8 million over 3 years agreed in February 1996)

1. Economic growth rate: 6%
2. Inflation rate in line with that of industrial countries
3. Current account deficit: Less than 3% of GDP, lowering the foreign debt burden
4. Foreign exchange reserves: Equivalent to 3 months' imports
5. Reduction of budget deficit, from 4.8% of GDP in 1995 to 2.5% in 1998

### Structural adjustment policies designed to achieve these objectives

1. Fiscal reform  
Reform of taxes, expenditure structure, deregulation, financial system, food subsidies, government payroll, pensions
2. Reform of financial system
3. Exploitation and activation of private sector  
Deregulation, reform and privatization of state enterprises
4. Improving its integration with the global economy

### Programs in 1996

1. Economic growth rate: 6.5%
2. Inflation: 3.5%
3. Current account deficit: Less than 4% of GDP
4. Foreign exchange reserves: Significant accumulation
5. Fiscal deficit: 3.8% of GDP, reduced current expenses, increased revenue, review of subsidies, privatization, deregulation, financial sector reform

### Responses to social costs

1. Improvement of distribution and income support systems (to ensure that they benefit the needy)
2. Improvement of National Aid Fund
3. Promotion of economic growth

### Major economic indicators (unit: %)

	1992	1993	1994	1995	1996
Economic growth rate	16.1	5.9	5.9	6.4	6.5
Inflation (%)	4	3.3	3.5	3	3.5
Current account deficit (% of GDP)	-14.4	-11.6	-6.5	-4.6	-3.9
Fiscal revenue & expenditure (excluding grants)	-3.2	-5.8	-6.3	-4.8	-3.8

## **The World Bank's Structural Adjustment Loans**

### **The Industry and Trade Policy Adjustment Loan (ITPL) (December 1989, total amount \$150 million)**

#### **(Objectives)**

1. Rationalization of import policy: lowering, simplification of tariffs
2. Strengthening of export promotion policies: creation of export finance scheme, etc.
3. Reform of investment promotion policy: amendment of the Investment Promotion Act, etc.
4. Support for the poor during the adjustment period

#### **(Japanese co-financing)**

In the framework of assistance to the key frontline countries during the Gulf Crisis, the OECF and the Export-Import Bank of Japan each contributed \$75 million.

### **Energy Sector Adjustment Loan (October 1993, \$80 million)**

#### **(Objectives)**

1. Reform of electric power sector (higher tariffs, better financial position of utilities, etc.)
2. Reform of oil & gas sector (higher price, privatization studies, etc.)
3. Reinforced protection for the environment
4. Efficient use of energy

#### **(Japanese co-financing)**

OECF co-financing equivalent to \$80 million

### **Agriculture Sector Adjustment Loan (ASAL) (December 1994, \$80 million)**

#### **(Objectives)**

1. Efficient use of water resources
2. Deregulation of agricultural market
3. Institutional reinforcement (formulation of mid-term plan, extension service, etc.)

### **Economic Reform and Development Loan (ERDL) (December 1995, \$80 million)**

#### **(Objectives)**

1. Macroeconomic reform
2. Reorganization of import tariffs, improvement of licensing system
3. Improvement of investment environment

#### **(Japanese co-financing)**

OECF co-financing equivalent to \$80 million

### (3) The EU

The EU gave Jordan US\$188,268,000 in Gulf crisis-related aid in 1991, then abruptly cut back its aid in 1992 and thereafter. The EU is nonetheless still a major donor and contributor of very large sums via multilateral aid agencies, including the United Nations. Its aid also affects very vast areas, from structural adjustment support to agriculture, human resource development, and poverty alleviation.

From 1992 to 1993, it gave structural adjustment support designed to soften the effects of structural adjustments and maintain import levels by providing a supply of foreign currency; its aid amounted to US\$66,667,000. From 1989 to 1994 in agriculture, it drafted and implemented land use and soil mapping plans. Under a four-year plan begun in 1994, the EU is now assisting agriculture in semi-arid areas. To protect the environment and improve productivity, the EU has contributed 2 million ECU, Jordan's government, 566,000 ECU. The shortage of water resources has been given high priority: in the Azraq Basin, the EU conducted an groundwater survey, including promotion of effective use of water resources, from 1984 to 1993; since 1992, it has been conducting water resource survey and water use improvement surveys in the Hammad/Sirhan Basins of eastern Jordan. In the mining sector, the EU is also helping Jordan to develop mineral resources. In the social sector, it has been stressing employment promotion and anti-poverty measures since 1992.

The EU is also fostering the development of human resources in Jordan, aiming at a balance between higher education and vocational training and the demand for labor.

### (4) The UNDP

The United Nations Development Program is now carrying out a project covering the fiscal years 1992 to 1996. Though the UNDP has also cut its budget, it is conscious of being better off than other donor agencies. With an eye on the Middle East peace process, it is engaged in institution building and human resource development.

The UNDP is first of all assisting Jordan to build its institutions and to enhance the competitiveness of both the government and the private sectors.



In the public sector, in addition to backing Jordan's efforts to decentralize and reinforce the planning and implementation capacity of its Ministry of Planning, the UNDP is planning to help Jordan to enforce its Environment Protection Act and Labor Standards Act, areas where Jordan has no previous experience. In the private sector, its aid is directed at helping Jordan to achieve competitiveness in manufacturing, where Jordan has concentrated until now on assembly processes. The UNDP is also engaged in industrial trade extension services designed to foster industrial growth, focusing mainly on smaller enterprises, and to create jobs. It also supports income generating activities for low-income households. Especially because systems do not officially exist for investments in small-scale businesses, it plans to support this area. The sectors affected will probably be apparel, food processing, and the like.

The aim of institution building is to strengthen both the government and the private sector areas needed to implement the peace agreement as the Middle East peace process develops and to respond to changes that occur along the way. For example, stepping up the activities of the Ministry of Tourism is being considered in response to the growing number of tourists now drawn to Jordan by the peace.

Support for privatization is on the UNDP's schedule in response to Jordan's open-economy policy, but snags in the peace process sometimes slow these plans, which have not yet made much progress.

Funded by a UNDP grant, a National Environment Plan is now in progress, but its delay-prone implementation cannot yet be termed successful. Water is a priority question in the environment area; the UNDP is compiling a water-related database, something which the government had not done. Projects to augment Jordan's water resource management capability include, at a total cost of \$500,000, advising the government and urging that it should make the Ministry of Water and Irrigation better able to evaluate projects taking into account both long-term sustainable development planning and environmental protection.

Human resource development is being dealt with by the UNDP in connection with poverty, government support, and women in development. Since the nineties, the UNDP has supported the Queen Alia Fund's craft centers and other income-generating projects as a way to support antipoverty and voca-

tional training programs. The UNDP assists vocational training and industrial extension activities in Amman, Aqaba, and Irbid. Its aim is to invigorate regional economies by fostering smaller businesses and making them more competitive and productive. Its staff development efforts emphasize measures for youth. The compilation of statistics, etc., is being carried out in cooperation with the government.

An aid project jointly coordinated by Japan and the UNDP, the UNDP/Japan Palestinian Development Fund, is assisting the Palestinians. The UNDP regards the results achieved thus far as worthwhile and expects that the same scheme will be applicable to Jordan's case as well.

#### (5) The WFP

The WFP (World Food Program) has been giving aid to Jordan since 1964. More than 80% centers on development projects with priority on agriculture. Human resource development is also part of some projects: in rural villages, the WFP promotes education and women's agricultural and social activities. Emergency aid has included 17 urgent projects with investments totaling \$25 million since 1964.

Jordan is resource-poor and does not grow enough food to feed itself; the WFP therefore classifies it as a low-income food deficit country. The WFP's aid has been designed to prevent environmental deterioration, preserve natural resources, and raise the productivity of farmland and rangeland. Thus far, some success has been seen, in terms of a growing population of returnees to the farm and higher productivity.

One of the WFP's major projects is the Highland Development Project, which has been carried out since 1964 with the Ministry of Agriculture as a counterpart. The WFP contributed \$26.5 million and the Jordanian government \$36 million to promote fruit growing and open up and prepare land for terrace cultivation, as well as to build irrigation facilities in order to protect the soil and use water resources effectively.

In the area of pasturage, rangeland and forestry development has been underway since 1981. With a budget totaling \$6 million, forage shrubs are being planted on rangeland and afforestation is being carried out using acacia

and other tree species to protect the environment. Its small-scale aid projects include efforts to promote seed growing and vegetable growing. On rangeland, the environmental effects of excessive grazing—deterioration of soil and desertification—are becoming visible. The WFP therefore recommended to the Jordanian government that it stop its livestock raising subsidies and that to ease the impact of this measure on farmers, they should be given aid to help them secure alternative sources of income, especially via income generating activities targeting women. Measures are being taken to prevent soil deterioration by introducing the use of appropriate fertilizers.

The WFP is also giving aid related to agricultural and food production that entails structural reform of government and agricultural cooperatives. In collaboration with the FAO, it is supporting the improvement of milk collection and the spread of technology for milk refrigeration and storage and the processing of milk products as well as carrying out maternal and child health programs in the framework of its programs for women.

#### (6) UNICEF

In all its programs, UNICEF's consistent policy is to cooperate in the fields of health and education through close contacts with communities, especially rural communities, by maintaining ties with government institutions, in this case, Jordan's, and domestic and international NGOs.

UNICEF has cited the existence, at Jordan's present stage of social development, of certain easily overlooked pitfalls attendant with development, such as disparities between urban and rural areas, or delayed development of the urban periphery due to migration of the population toward the cities.

And while the percentage of the population living in "absolute" poverty is smaller than it was at one time, UNICEF points out that Jordan's internal income disparities are growing; in order to better understand people's real-life situations, especially in rural areas, a large-scale survey of Jordanian living standards is being jointly carried out by UNICEF and the Jordanian Department of Statistics.

In education, UNICEF plans for the next five to ten years to continue cooperation in public relations directed at parents about the education of their

children. Preschooling is an area where UNICEF, together with the counterpart organization Queen Noor Hussein Foundation provides both material and organizational assistance in the establishment and upgrading of educational programs for preschool children, in addition to the EPI program focusing on mother and child health, improvement of maternal and child nutrition, and cooperation in health education.

## **Chapter III Japanese ODA's Orientation and Approach**

### **1. Orientation and Agenda for ODA**

#### **1-1 Basic ODA Orientation**

As we mentioned in the introduction and other sections of this report, Japan's official development assistance for Jordan is first and foremost an integral part of Japan's international efforts to consolidate the Middle East peace process. To promote both the peace process between Jordan, Israel, and Palestine and the stability and security of the entire Middle East region, it is vital for Jordan to be politically and socially stable and to be launched on the road to economic development. This is the foundation on which Japanese ODA should rest, and the orientation of Japanese ODA should therefore be discussed in terms of the following points.

The first is that assistance to Jordan should contribute to Jordan's political and economic stability. As discussed above, Jordan is now striving simultaneously to carry out structural adjustments and to promote the Middle East peace process. Jordan is now at a turning point for this reason; Jordan must therefore ease as much as possible whatever political, social, and economic friction, conflicts, and contradictions that may be generated by the structural changes it is undergoing. Specifically, Jordan should do its best to establish safety nets so that Jordanians can recognize tangible peace dividends and Jordanian society can improve its capability to keep up with change.

The second is to cope with the various problems which are likely to come up in the process of solving the Palestinian problem, and which might have major impacts on the political and economic situation in Jordan. The Interim Palestinian Self-Government has just gotten under way in the West Bank and the Gaza Strip, and it is likely to encounter obstacles and difficulties in the future, and will be influenced, for example, by progress in and results of negotiations over Palestine's permanent status, the outcome of plans to establish a Jordanian-Palestinian confederation, and the future of Palestinian refugees, including those living within Jordan. All of these are issues of great importance for Jordan.

The third is the need to grope for an orientation that facilitates simultaneous economic development both in Jordan and in the Middle East region. The Jordanian economy's future depends heavily on whether the region as a whole can achieve economic development, and such mutual economic development will underpin the political Middle East peace process. The core of such a regional economy will consist of Jordan, Israel, and Palestine, with Iraq and the Gulf states also within its purview. As mentioned in 1.3-2, major expansion of Jordan's economic relations with Syria and Lebanon is unlikely from a historical point of view.

Taking these points into consideration, three basic orientations of ODA for Jordan can be considered as follows:

1. Laying the foundations for economic stability and development

To carry out the various reforms needed to promote structural adjustments in the short run and to improve the administrative capability to design and implement industrial policies and to reorganize the public sector in the medium and long run.

2. Supporting the stability and sustainable development of Jordan's domestic communities

To direct efforts at basic human needs (BHN) and other facets of social development, including the improvement of safety nets. In a broader sense, this includes support for Palestinian refugees.

3. Assisting the Jordanian economy to become a more active entrepôt site in prospect of the regional economy's take-off

To promote industrial development, to equip local areas with infrastructure, and to use water resources efficiently.

## 1-2 The Temporal Framework of ODA

ODA for Jordan can be considered within three temporal frameworks: i) short (2 or 3 years), ii) medium (5 or 6 years), and iii) long (about 10 years).

In the short term, the target year will be either 1998 or 1999, when the

present structural adjustment program and the interim period of Palestinian self-governance are respectively scheduled to end. Domestically, Jordan will have carried out reforms in fiscal deficit reduction, tax reform, and trade and investment liberalization by the end of this period. Internationally, the nature of Jordan's social and economic relations with both Israel and Palestine will have begun to change.

Such short-term assistance will not, however, enable Jordan to carry out structural changes, because it will cover only a short period and Jordan's situation, including its political risks, is still highly uncertain. Jordan is still far from being fully equipped with large-scale infrastructure and from receiving appreciable foreign investments. Accordingly, it will be difficult for Jordanians to actualize tangible peace dividends during this short period of two or three years, though it will be the most important stage for Jordan in building the foundations for the Middle East peace process.

In other words, from now until 1999 will be a period not only for Jordan to increase its political, social and economic strength in preparation for yet greater changes and development in the future, but also for the international community to firmly establish the present Middle East peace process. Japanese assistance for Jordan during this period should be designed to permit the following: i) to facilitate the various reforms now under way, ii) to foster Jordan's industry to give its economy a strong foundation, iii) to make it possible for Jordanians to recognize tangible peace dividends, and iv) to provide backing for the various schemes for establishing cooperative ties between Jordan and other countries in the Middle East and give an economic underpinning to the political (Middle East peace) process.

In the medium term (5 or 6 years), it is expected that the structural adjustment program will have ended, and Palestinian self-government will have achieved permanent status. During this time, Jordan will establish long-range, permanent relations with Palestine. Its ties with Israel and Arab countries, including Syria, will also be further normalized, and action will be taken toward laying the foundations for regional economic development. It is likely, however, that reforms and changes will bring Jordan's social and economic contradictions into greater evidence. It is also likely that Iraq will undergo major changes. Iraq's reconstruction and renewed growth will bring Jordan major economic benefits, but harbor the danger at the same time that disorder

next door Iraq could spread to Jordan.

Whatever happens elsewhere, Jordan must achieve real social and economic development at home, fully exploiting the various reforms that were underway during this mid-term period. International support for the Middle East peace process will begin diminishing in the course of this period, and Jordan will eventually have to become less dependent on foreign assistance. Japanese assistance for Jordan during the same span of time should therefore be designed to achieve the following: i) to foster industry and better establish Jordanian institutions to activate the economy effectively, ii) to facilitate regional economic cooperation within the Eastern countries and building of infrastructure, and iii) to meet basic human needs (BHN) and achieve social development.

In the longest period under consideration (about 10 years), it is expected that the Middle East peace process will achieve considerable results and contribute to regional economic development in many fields. In a decade, Jordan will have to become more independent economically and assume a key role in developing the regional economy. On the other hand, however, due to its growing population, Jordan may, it is feared, be weighed down by an ever heavier social and economic burden, a critical shortage of water, and aggravation of the urban living environment. From the long-term standpoint, therefore, Japan's foreign assistance to Jordan must support the building of foundations for investment tailored to regional economic development and direct attention at improving the whole spectrum of economic and social infrastructure so as to make sustainable development possible.

These three temporal frameworks are, it must be stressed, merely rough guidelines for Japan's assistance for Jordan, and whenever appropriate, Japan's ODA agenda must be modified taking into consideration Jordan's current situation. Nor should short-, medium-, and long-term priority areas for ODA be separate or mutually exclusive: they should have continuity and be mutually linked. Especially with regard to medium- and long-range plans, the longer time frame does not mean that this assistance can be postponed: it simply means that plans in this category will take a certain time to achieve results. When designing and implementing programs, therefore, it is vital to give committed support to, for example, human resource development, technology transfers, the suitable use of water resources, and improvement of the environment



in urbanized areas, taking into consideration the directions and extent of environmental changes that are taking place in and around Jordan.

### **1-3 Important Considerations in ODA Implementation**

Special consideration should be given to the following in the planning and implementation of ODA for Jordan, taking into account, of course, both Japan's fundamental philosophy and principles regarding assistance and Jordan's specific needs and circumstances:

First, Japan should explain and emphasize repeatedly to Jordan that Japan's assistance must comply with the basic philosophy and the four principles expressed in Japan's Official Development Assistance Charter. Japanese ODA for Jordan is an integral part of Japan's assistance in the conflict resolution process. From a historical point of view, there is, moreover, little cause to fear that Jordan will become involved again in military conflicts.

Second, with reference to the above-mentioned ODA Charter's basic philosophy, Jordan has been making self-help efforts and striving to shift to a market economy by implementing structural adjustment programs, for example. It is important that Japan take such efforts into account and inform Jordan at every opportunity that, in line with the philosophy of its ODA Charter, Japan intends to provide Jordan with ODA to support such self-help efforts. Yet it must be understood especially fully by Jordan that international financial support for the Middle East peace process will ebb in the medium or long run, and that Jordan must make independent efforts to end its financial and economic dependence on other countries.

Third, compatibility with multilateral support frameworks for the Middle East peace process must also be taken fully into consideration. Japan has long put great stress both on Jordan's economic development (specifically on tourism) and on environmental protection and improvement. Japan should actively integrate the orientation and findings of multilateral assistance efforts with specific items of its bilateral support for Jordan. Unlike assistance for the Palestinians, assistance for Jordan has no multilateral support framework to enable coordination among aid donors. Japan therefore must make efforts to initiate such coordination.

Fourth, attention should be paid to the building of safety nets intended for

the sectors of Jordanian society whose lives are most easily affected by social and economic changes. Efforts must be directed especially at creating jobs for Jordan's many unemployed youths and at alleviating such negative social factors as poverty, deterioration of the urban environment, and the disparities between rural and urbanized areas. In connection with safety nets, Japan must continue its support of Palestinian refugees in Jordan.

Fifth, Japanese assistance should promote ordinary citizens' participation in ODA. Participatory ODA has two aspects: one is participation by the Japanese, the other is participation by Jordanians. For some time, Japan has been sending Japan Overseas Cooperation Volunteers (JOCV) to Jordan, which has also helped Japanese people learn more about this country that is still unfamiliar to them, and to promote the Middle East peace process at the non-governmental level. This type of cooperation will, we hope, be further promoted through tie-ups with NGOs. International cooperation programs run by local governments should also be promoted. The other aspect is that it will become more and more important to establish systems that enable more Jordanians to participate in development projects of various kinds, and this will also help Jordan to become more responsive to social change. Local NGOs are also active in promoting social welfare in Jordan, and cooperation with these organizations should be also promoted.

## **2. Priority Areas for ODA**

### **2-1 Laying the Foundations for Economic Stability and Development**

As we saw, the first task of economic cooperation with Jordan must be to help Jordan to lay the foundations for political and economic stability and strengthen the foundations for its future development in the framework of Middle East peace talks. In other words, assistance for Jordan must help to write the scenario for Jordan's political and economic stability and self-reliant economic development.

A very severe recession fell upon Jordan's economy from the late 1980s to the early 1990s. Jordan's government budget and balance of payments both ran large deficits, well over 10% of GDP, and its foreign debt rose to 200% of GDP. Jordan therefore decided to adopt structural adjustment policies in cooperation with the World Bank and the IMF. Four times since 1989, the World

Bank has granted Jordan structural adjustment loans, and the IMF has granted Jordan both Stand-by Credit and Expanded Fund Facilities (SCEFF). In concerted action, the Overseas Economic Cooperation Fund (OECF) and the Export-Import Bank of Japan provided co-financing loans to support Jordan's structural adjustment programs. And in order to help Jordan to overcome its foreign debt crisis, Japan and other developed countries agreed on debt relief packages (rescheduling foreign debt, etc.) on three occasions between July 1989 and June 1994. These measures took effect, and the Jordanian economy improved dramatically: Jordan's current account and budget deficits shrank respectively to -4.6% and -4.8% of GDP, and its foreign debts were halved, to about 100% of GDP.

It goes without saying that such loans were granted exceptionally: they were "commodity loans" designed specifically to support Jordan's structural adjustment program and to bail out the Jordanian government during its international balance of payments crisis. The debt relief measures were also taken exceptionally, and such measures will presumably be unnecessary in the future, since structural adjustments promoted with their help in different sectors of the economy will decrease the balance of payments and budget deficits, stimulate the economy, and promote private investment in Jordan. One of Jordan's main tasks, especially in the short run, is therefore to lay the foundations for its future self-reliant economic growth by promoting structural adjustments and putting the final touches on Jordan's scenario for self-help economic development. At the same time, as mentioned in the next section, in the process of securing political, social, and economic stability, Jordan must address itself to the burden of structural adjustments on the sectors of the Jordanian population whose lives are most seriously affected and make it possible for Jordanians to perceive and enjoy tangible peace dividends.

Assistance for laying the foundations for Jordan's economic stability and development consists of two important tasks: assistance for achieving "macroeconomic stability through structural adjustments" and assistance for "reforming the government and public sector."

As to the first task, "macroeconomic stability through structural adjustments" will not be achieved without sustainable and stable economic growth, control over inflation, and reductions in the budget and balance of payment deficits.

The 1996-1998 plan agreed upon between the Jordanian government and the IMF sets as its targets achieving a GDP growth rate above 6%, a rate of increase in the consumer price index not substantially greater than the average CPI rise in industrialized countries, reductions in the budget and current account deficits respectively to 3.5% and 3% of GDP, and foreign exchange reserve levels equivalent to three months' imports. Jordan's economic management is now directed toward achieving these targets, requiring Jordan to do two things: to increase and stabilize annual revenues through tax reforms and expansion of the tax revenue base, and to reduce the budget deficit by reducing current expenditures.

To ensure economic growth and reduce the balance of payments deficit also requires Jordan to shake off its dependence on foreign assistance by diversifying its sources of foreign currency and improving the trade balance by promoting imports in the process of opening up its economy. This requires Jordan to maintain a sound overseas borrowing policy and reduce its foreign debt and to weigh carefully the adequacy of its foreign exchange and import control policies.

With regard to the second important task, "reform of the government and public sector," measures must be taken to reorganize the government sector and make it more efficient, to reform and privatize state enterprises, to open the Jordanian economy to the outside world, and to stimulate private-sector investment. It is a known fact that Jordan's educational level is relatively high and the country has produced many talented individuals. On the other hand, however, its offices and services are beset by many persistent administrative inefficiencies: e.g., unclear or overlapping government agency jurisdictions, a slow process of decentralization and concentration of authority in the hands of upper-echelon officials, and excessive red tape. From the fiscal point of view, the resulting heavy burden of current expenditures weakens the fiscal base.

It is therefore important that Jordan's government sector first be made more efficient and undergo organizational reforms. Especially in view of Jordan's long-term development, it is important to draw up and implement efficient and well planned development plans (by drafting public investment programs (PIPs), for example). Many state enterprises and public corporations are running losses due to inefficiency, increasing the financial burdens on the state—though

the Telecommunication Corporation, the Electric Power Agency, and a few others are making profits. Jordan will have to turn its state enterprises and public corporations into organizations operating in accordance with established accounting rules, based on autonomy through privatization or commercialization, and will have to promote efficiency by introducing a competitive environment and adopting a more appropriate price scale.

Jordan's next step to opening its economy to the outside world and promoting private investment is multifold: it must lower its import tariffs and simplify its import procedures, simplify and speed up customs procedures, in effect abolish the import licensing law, revise the tax system regulating imports of capital goods, and establish quick and transparent procedures for approving investments. Measures of all these types are now in progress in the framework of economic reform and development plans. It goes without saying that implementation of these reforms necessitates human resource development and improved "soft" infrastructure such as statistics.

In order for Japan's economic cooperation with Jordan to contribute to "macroeconomic stability through structural adjustments" and to "government and public sector reform," it must be directed toward improvement of related legislation and strengthening of the government's planning departments (especially their capability to draw up and implement plans in the field of industrial policy, one of Japan's specialties) as well as vocational training and other forms of human resource development designed to stimulate the private sector. It is necessary for Japan to continue both technical assistance and financial assistance in combination with elements of technical assistance to help Jordan carry out these programs.

## **2-2 Supporting the Stability and Sustainable Development of Jordan's Domestic Communities**

The structural adjustment policies now being carried out by the Jordanian government are important building blocks of the foundations for Jordan's future development, as we have seen. While the transition is under way, however, measures must be taken to ease political, social, and economic friction and conflicts caused by the heavier burden on those whose livelihoods are most easily and immediately affected in the short term by structural adjustments. At the same time, tangible peace dividends for the Jordanian people are also very important in order to maintain their support for the Middle East peace

process. In order to preserve Jordanian society's political stability, it is vital for Jordan to strengthen its social safety nets by passing measures for the unemployed and remaining attentive to the living conditions of the poor and, in a broader sense, to work toward society's development in general, including the satisfaction of basic human needs (BHN).

As we have seen in previous sections, Jordan has already achieved a relatively high level of social and economic development compared to other developing countries. Yet maintaining and improving the living standards of the Jordanians who are to undertake responsibility for achieving further economic growth are essential not only to achieve social stability but also to lay the economic foundations for ongoing and future efforts to stimulate the Jordanian economy.

From the standpoint of the structural adjustment package covering the period up to 1998 and the current Middle East peace process, all the categories of cooperation addressed here can be said to be basically short- or medium-term. Inasmuch as long-term action to reduce the population growth rate is also necessary to ensure Jordan's economic growth, however, long-term support directed at demographic and related issues must also be provided while watching relevant trends.

As already explained in Chapter II.2-4(4) about the present population situation, the population itself is expected to continue to increase for some time, although Jordan's population growth rate is declining. Due to the influx of people from rural areas and the resulting quantitative insufficiency of social services in cities, it is predicted that the urban living environment will deteriorate at the same time that the basic social services gap between rural areas and cities will widen.

To accommodate Jordan's growing population, both industry-fostering measures to create jobs for the larger population and demographic measures to decrease the natural growth rate, which remains high, must be taken. Cooperation with Jordan to improve the quality of basic medical services in the field of health care for mothers and children, already underway, is a useful way for Japan to make a contribution in this area.

In the implementation of cooperation at the local residents' level in the

fields of basic health care and population, Jordan's social, cultural, and economic situation as a cooperation recipient and the need to understand clearly women's role in Jordanian society are among the important considerations to bear in mind.

Taking these points into consideration, the following items are of great importance in assistance implementation.

(1) Improvement of environmental sanitation in urban areas

The percentage of Jordanian households served by water supply and sewage systems is high, but Jordan is continuously suffering from water shortages. To secure more adequate water supplies, especially for urban areas, assistance must be directed at rehabilitating Jordan's water supply system and improving sewage treatment and water recycling technology and should be channeled through the programs designed to improve the efficiency of water resource use described in 2-3 below.

The improvement of waste disposal and other environmental sanitation in urban areas is another important task. Last year, Amman and nine other Jordanian cities received Japanese grant assistance in this area; Japan must continue such active cooperation. Assistance implementation must take into account the rapid expansion of Jordan's urban areas and, in the medium term, their environs as well.

(2) Improvement of basic medical services, especially in rural areas

Under its well-established referral system, Jordan's health care standards are very high, as mentioned above. In rural areas with little access to medical care, however, the quality of health care in terms of the number of medical staff and adequacy of medical equipment and supplies is poorer than in urban areas.

Specific measures to bridge this gap and improve medical service delivery to rural populations include, for example, supplying more basic medical equipment and training medical staff to operate and maintain such equipment; providing mobile medical vehicles is another useful way to facilitate wider access to medical examination and treatment for the Bedouin tribes and other